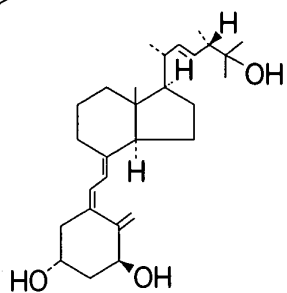


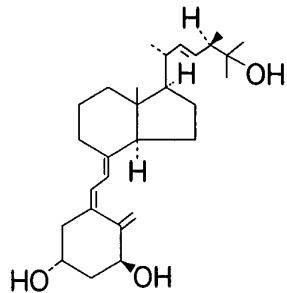
Fig. 1

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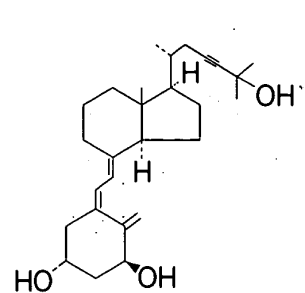
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J



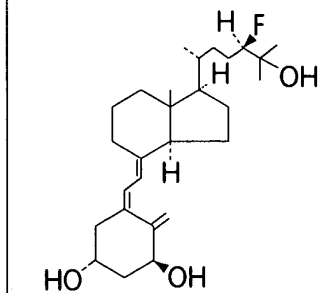
1,25-(OH)<sub>2</sub>-  
24-epi-D<sub>2</sub>

K



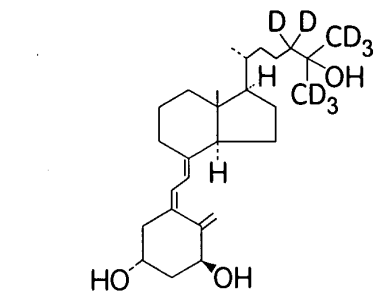
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23-yne-D<sub>3</sub>

L



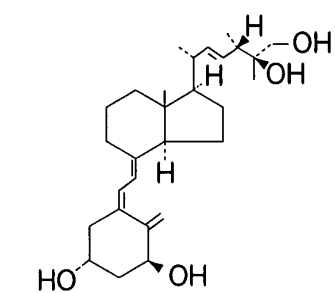
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M



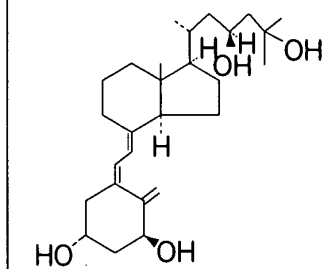
1,25-(OH)<sub>2</sub>-D<sub>3</sub>-  
24,24,26,26,26,27,27,27d<sub>8</sub>

N



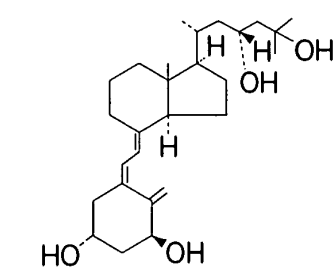
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O



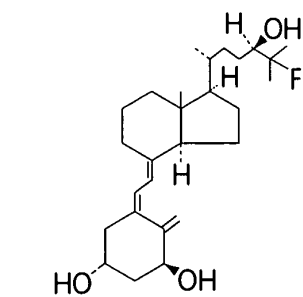
1,23,25-(OH)<sub>3</sub>-D<sub>3</sub>

P



1,23R,25-(OH)<sub>3</sub>-D<sub>3</sub>-

Q



1,24R-(OH)<sub>2</sub>-25-F-D<sub>3</sub>

R

Fig. 1Cont.

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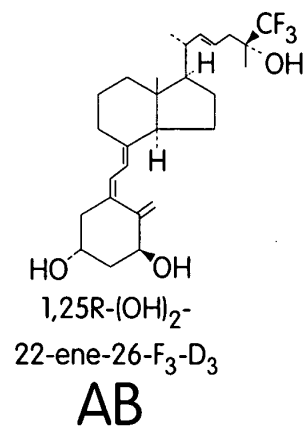
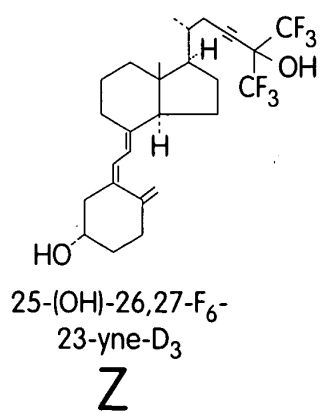
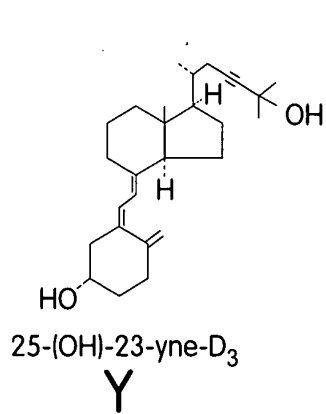
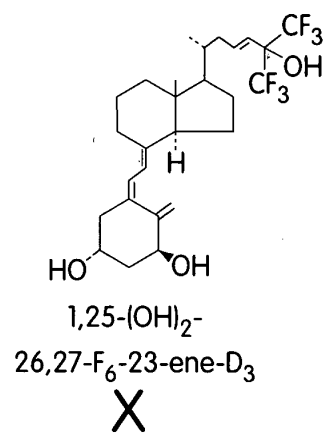
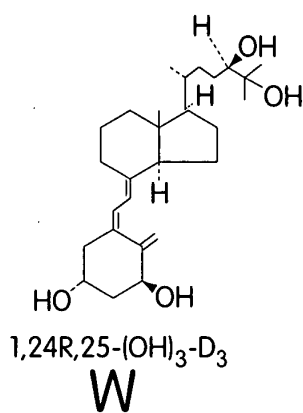
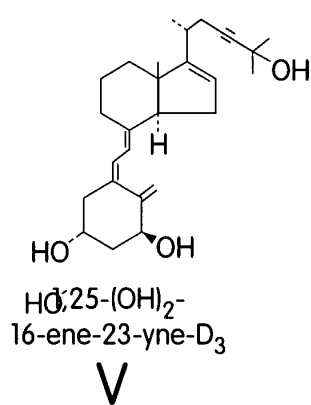
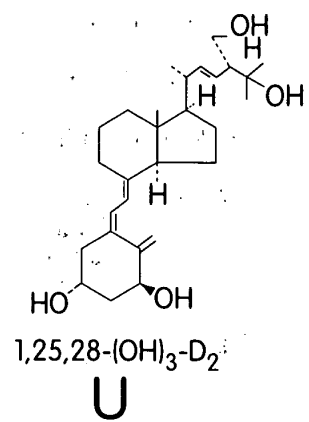
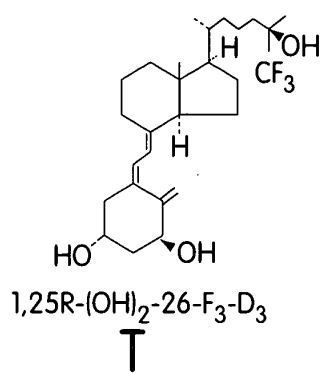
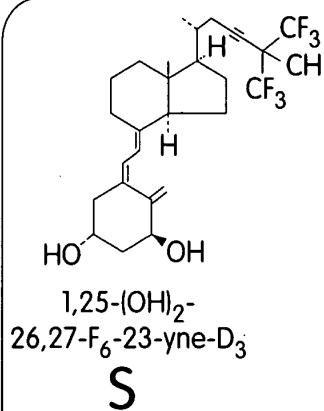


Fig. 1Cont.

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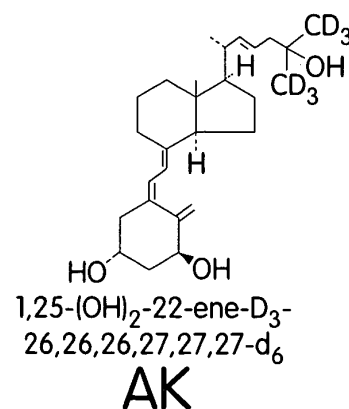
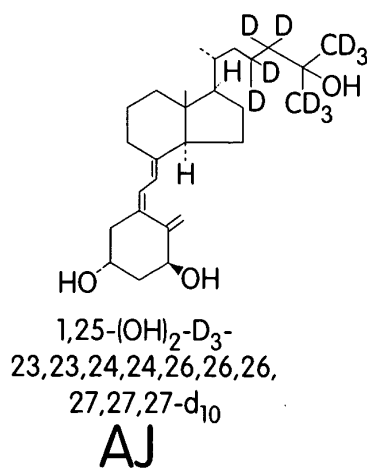
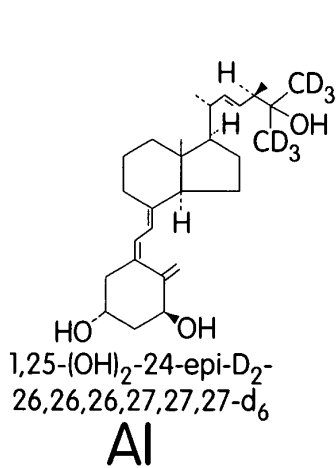
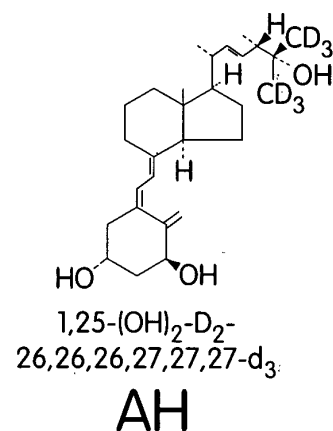
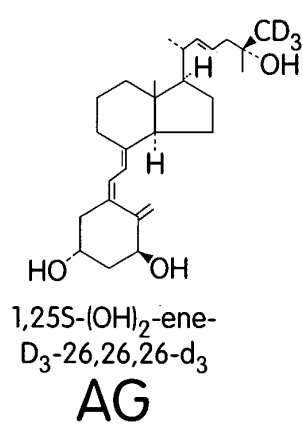
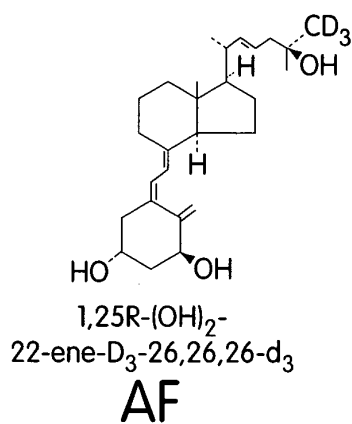
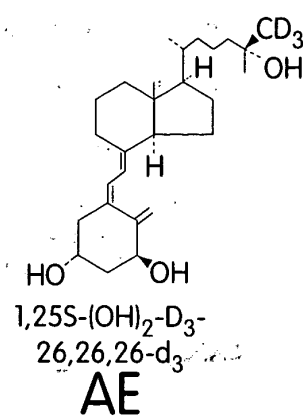
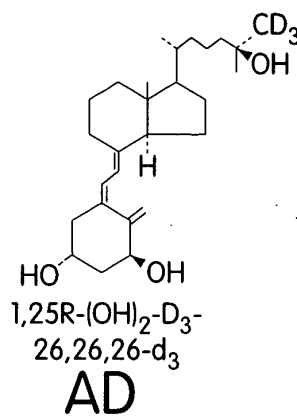
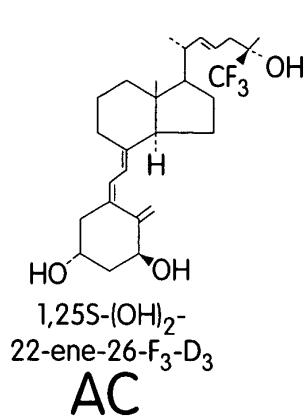


Fig. 1Cont.

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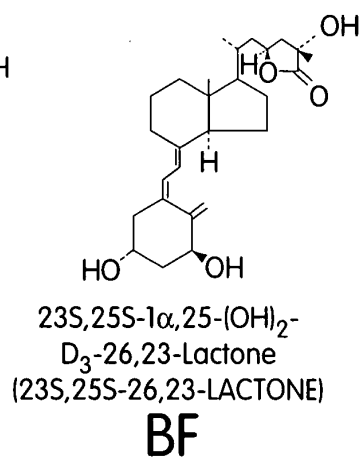
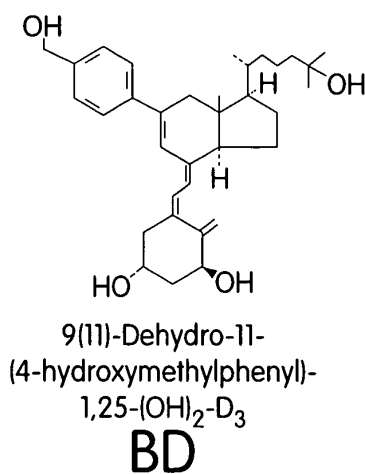
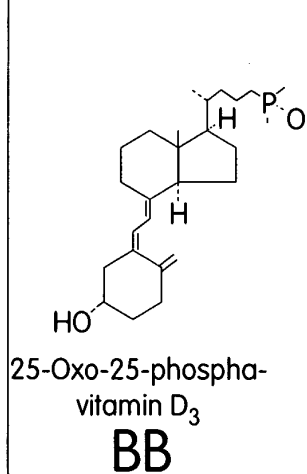
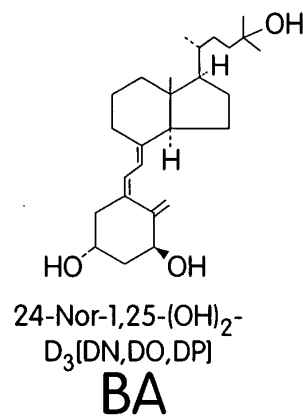
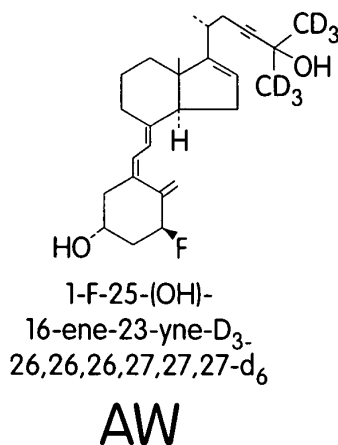
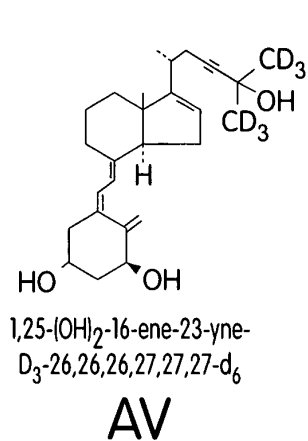
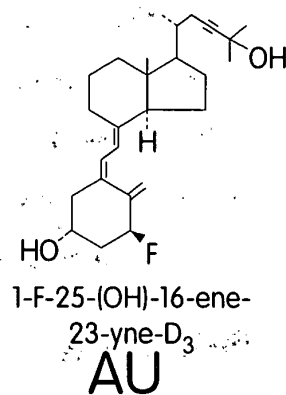
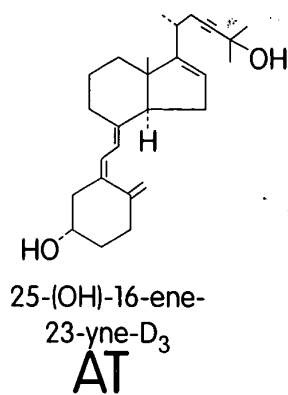
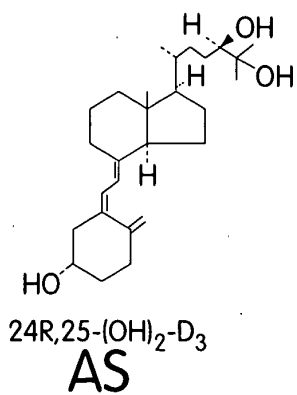


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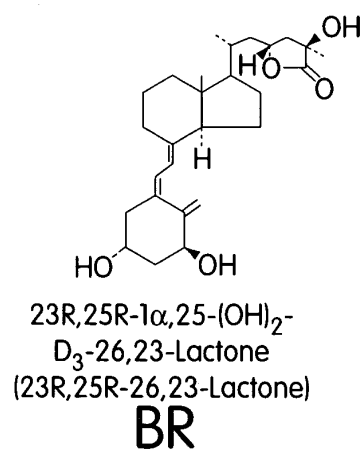
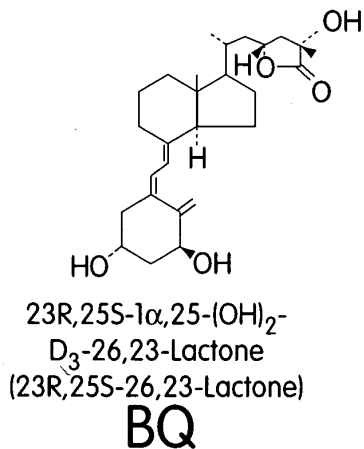
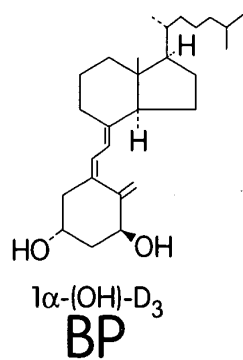
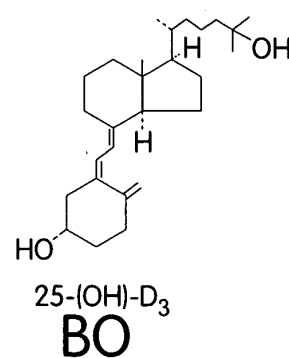
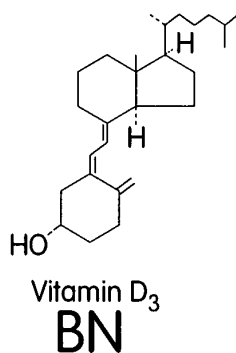
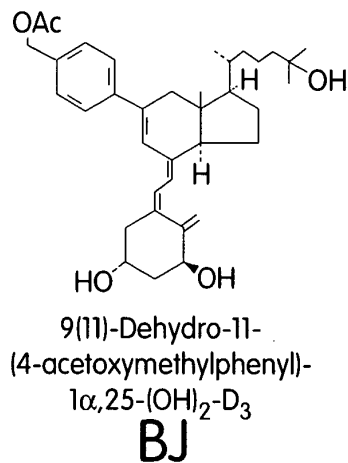
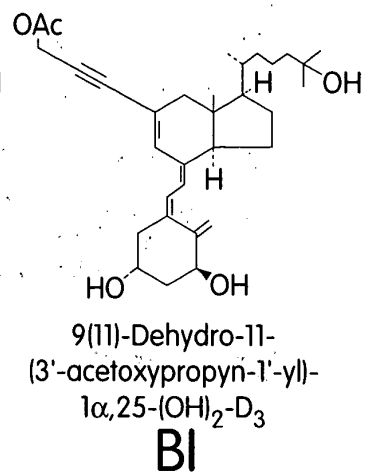
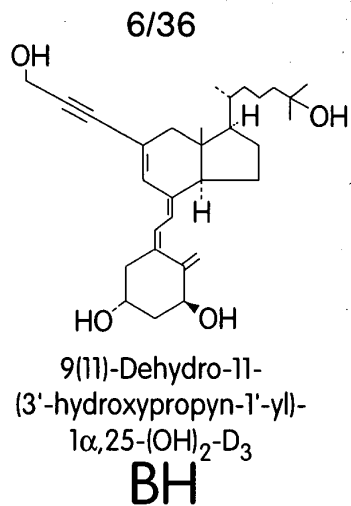
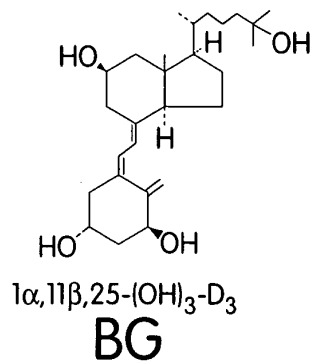


Fig. 1CONT.

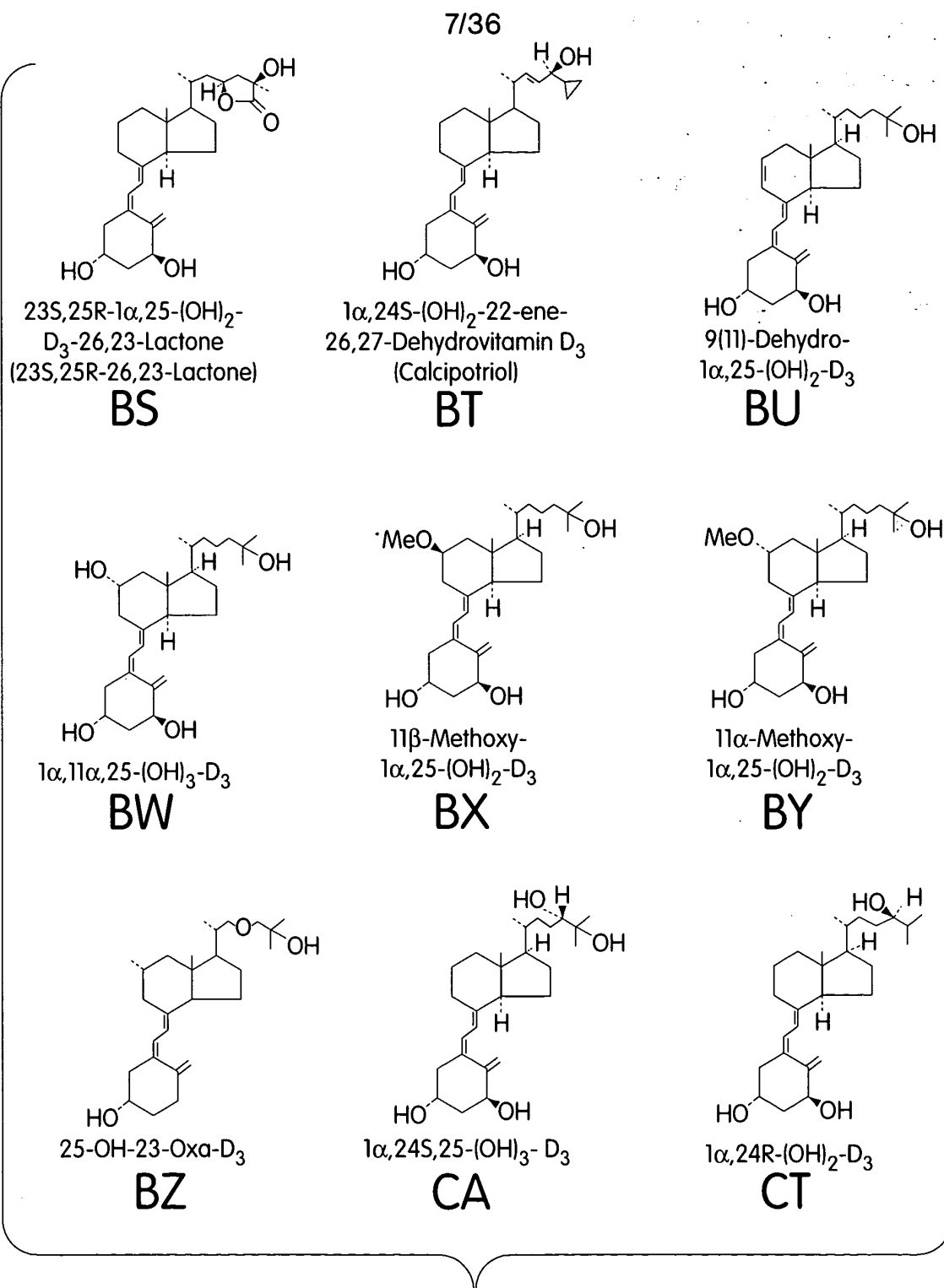


Fig. 1Cont.

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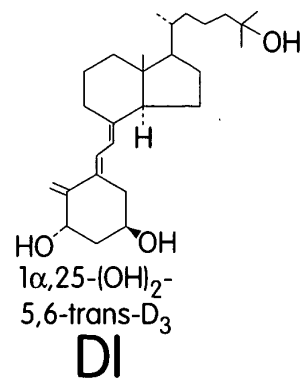
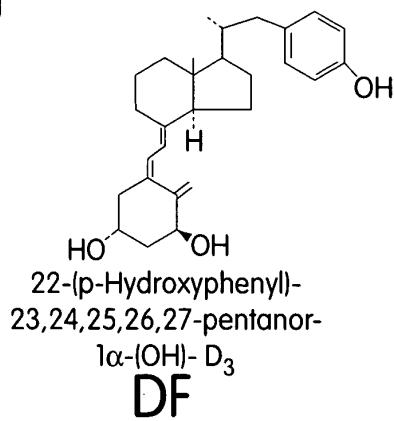
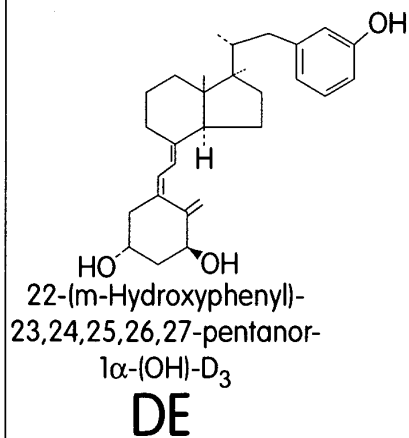
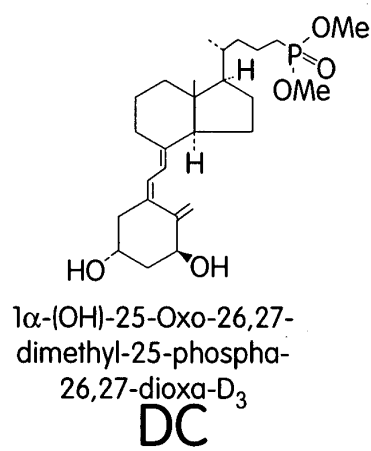
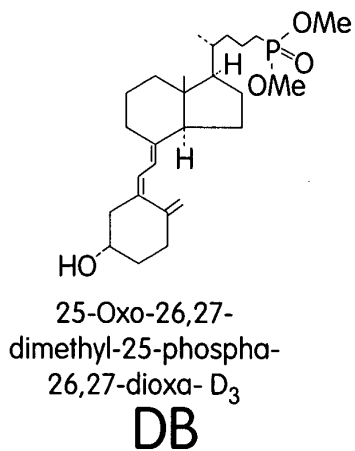
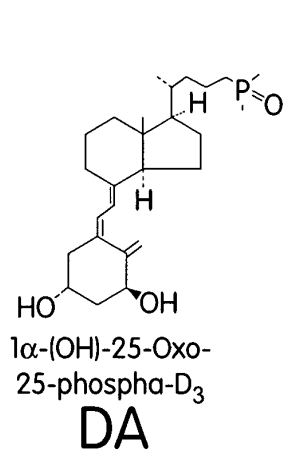
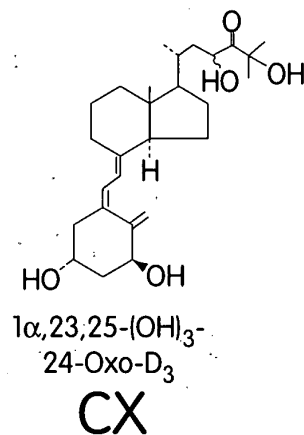
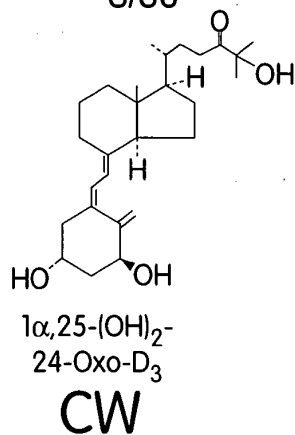
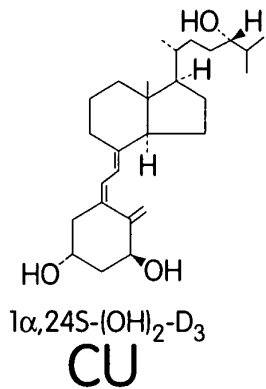


Fig. 1Cont.



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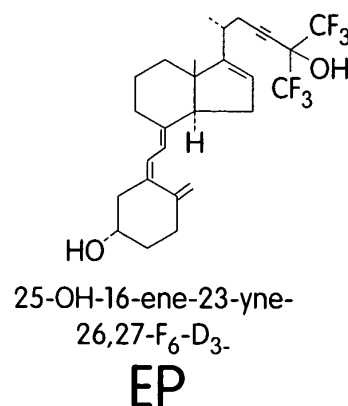
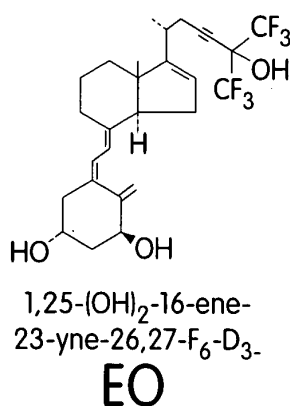
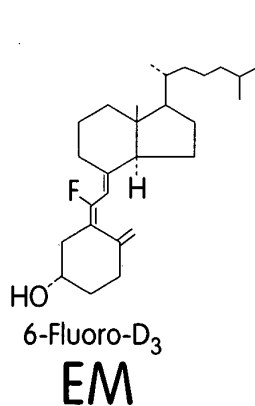
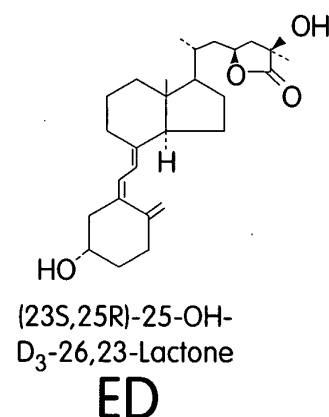
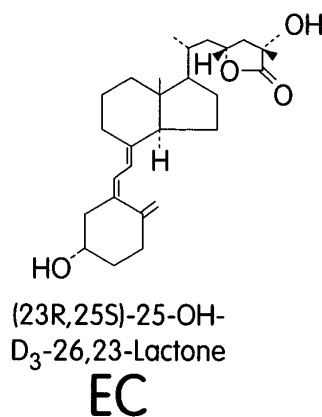
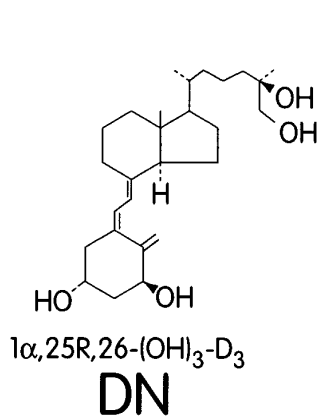
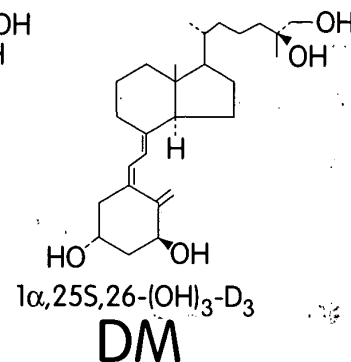
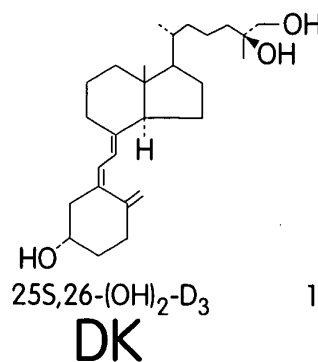
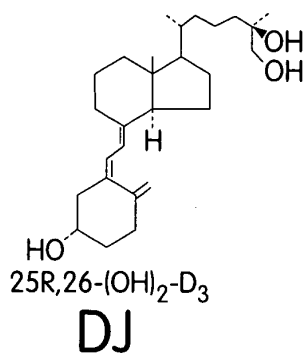


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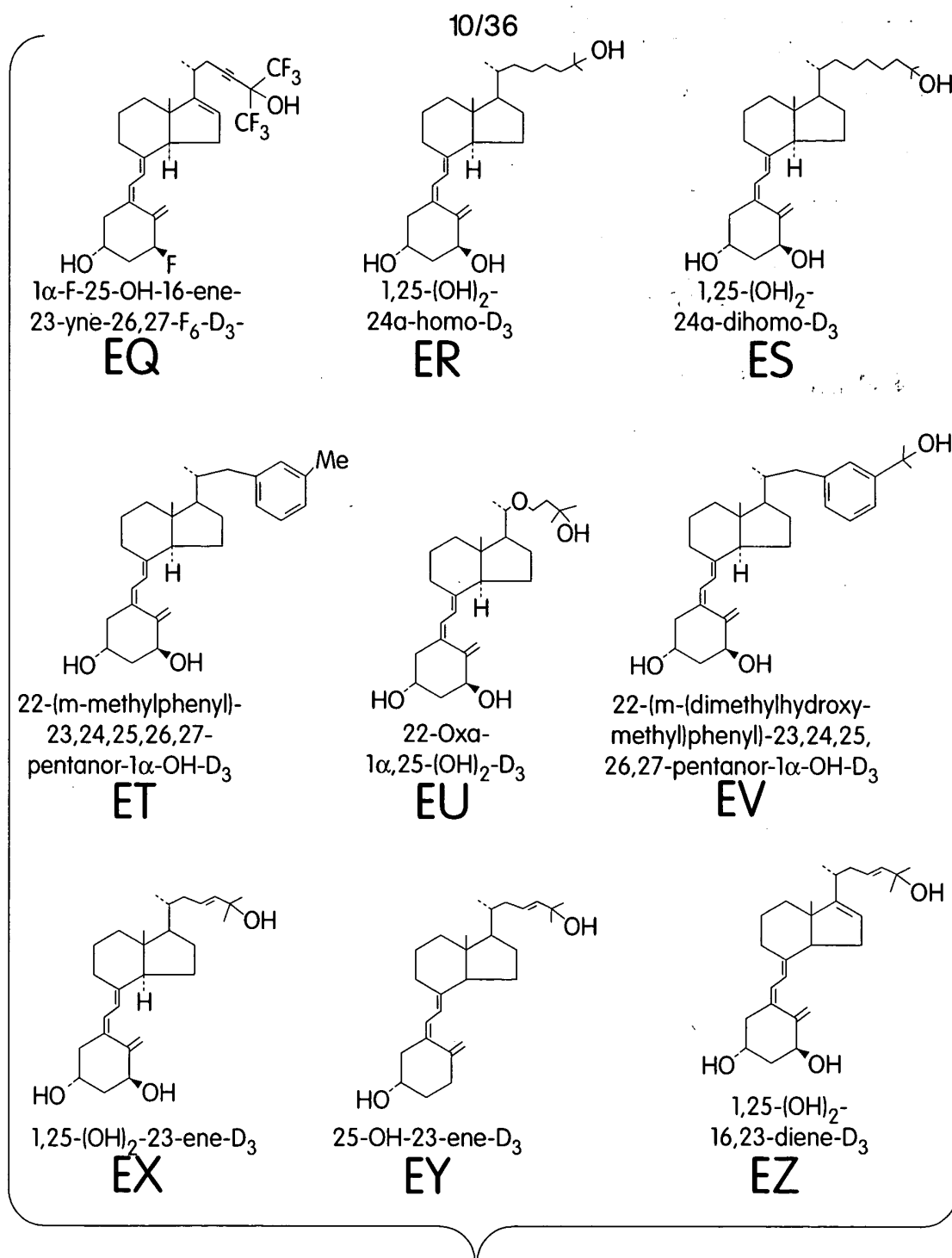


Fig. 1Cont.

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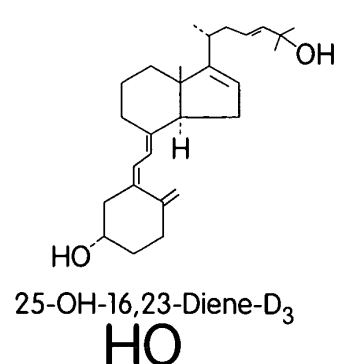
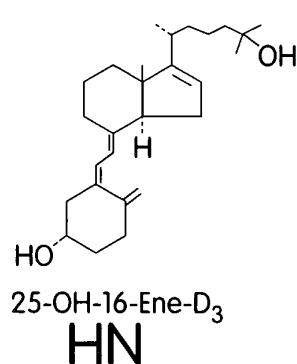
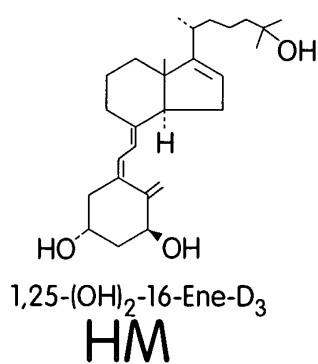
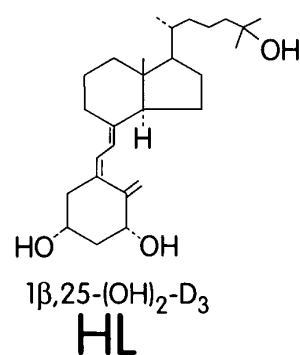
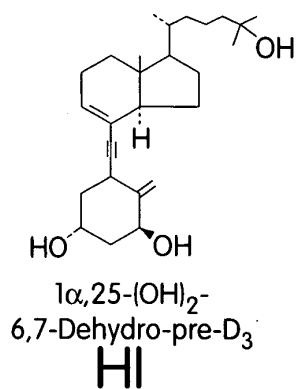
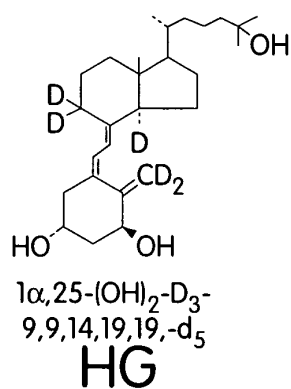
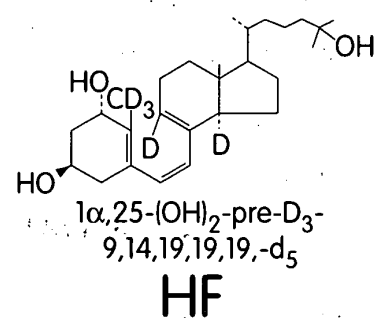
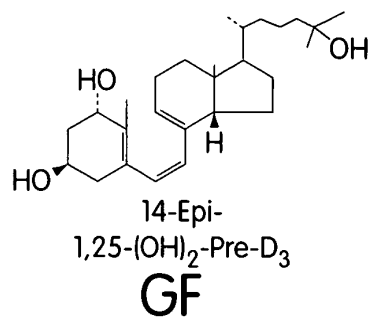
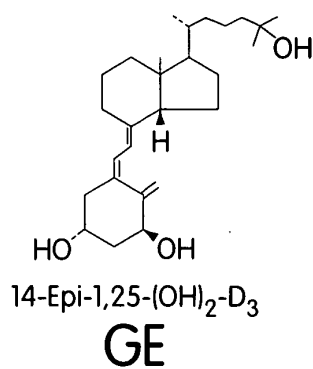


Fig. 1Cont.

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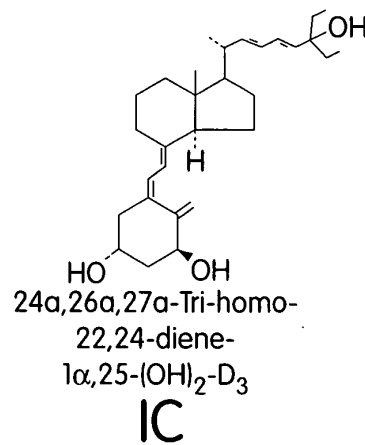
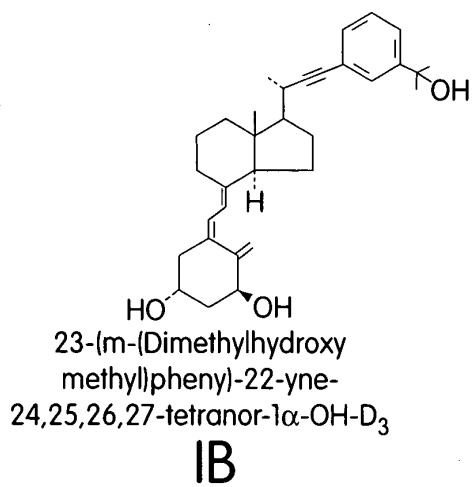
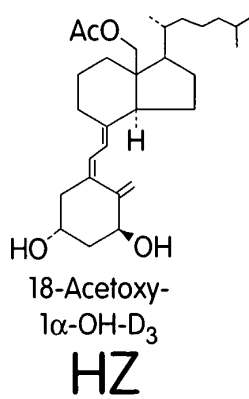
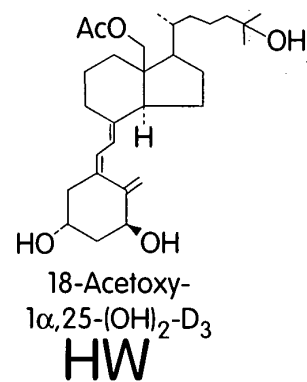
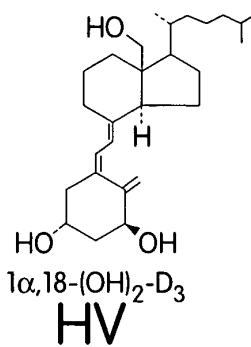
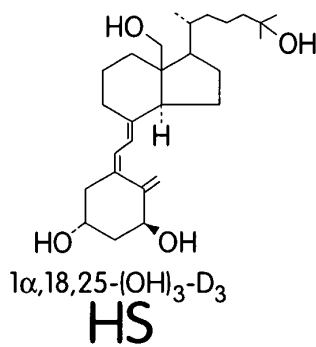
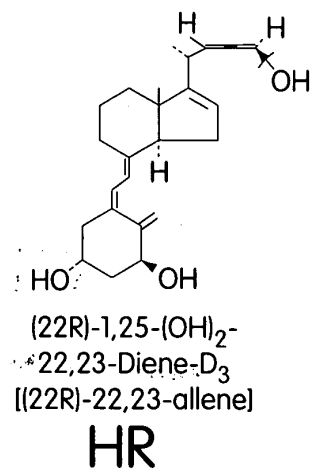
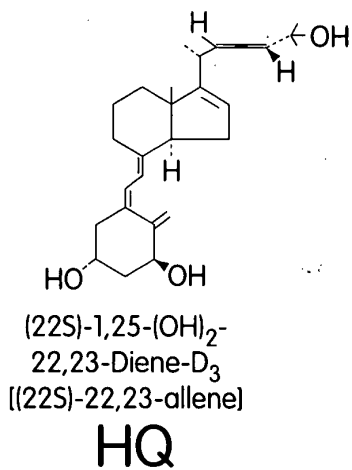
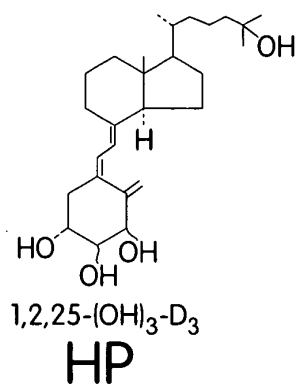


Fig. 1Cont.

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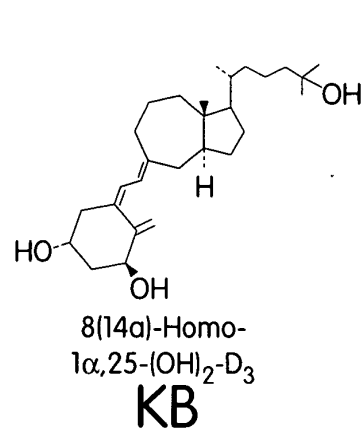
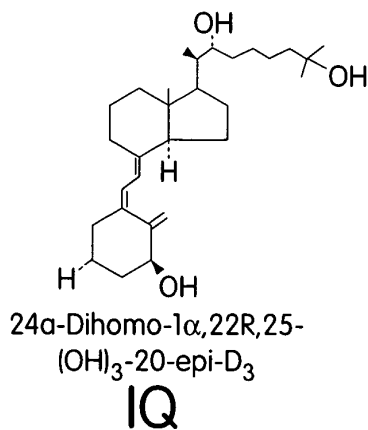
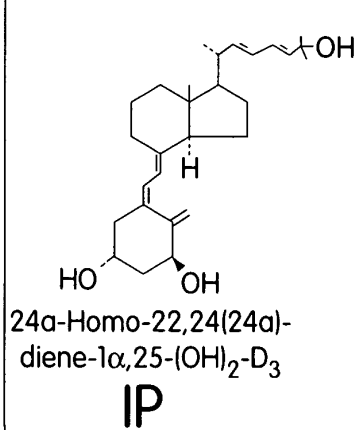
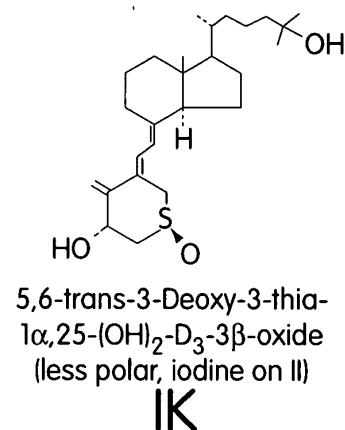
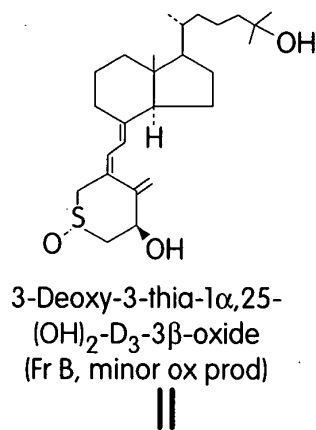
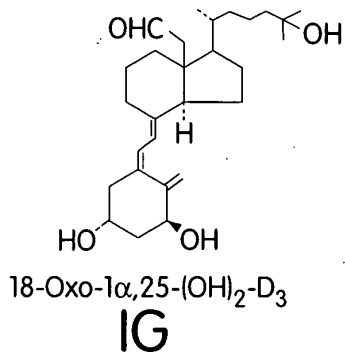
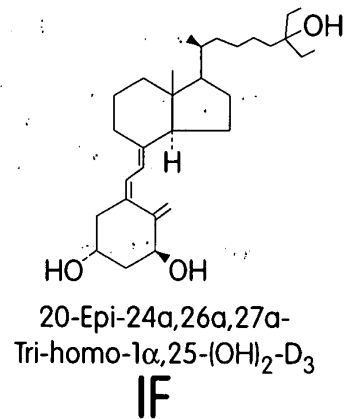
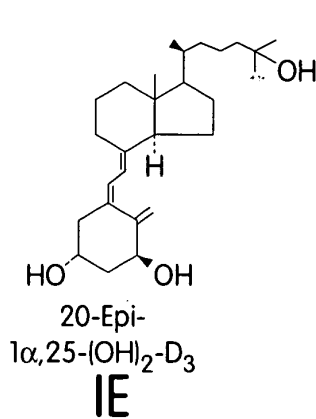
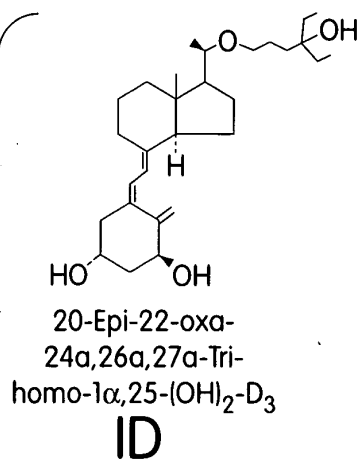
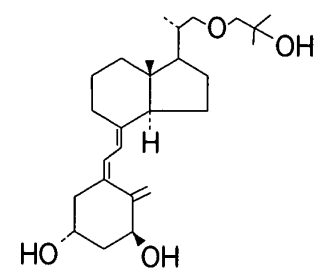


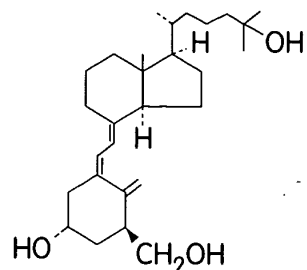
Fig. 1Cont.

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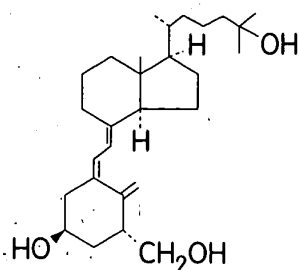
23-Oxa-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**KD**



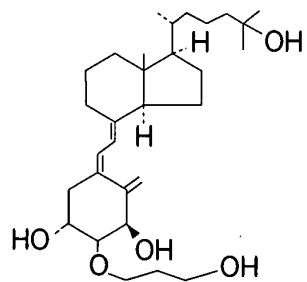
1α-(hydroxymethyl)-  
25-OH-D<sub>3</sub>

**ZAA**



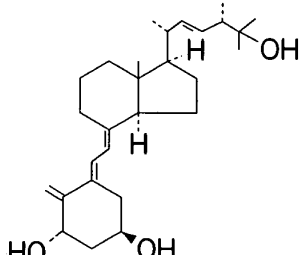
1β-(hydroxymethyl)-  
3α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAB**



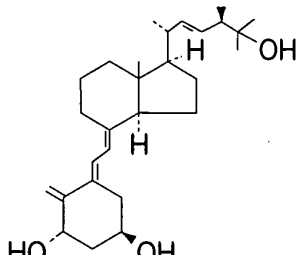
2β-(3-hydroxypropoxy)-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAC**



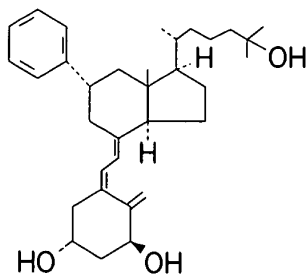
1α,25-(OH)<sub>2</sub>-  
24(S)-5,6-t-D<sub>2</sub>

**ZAD**



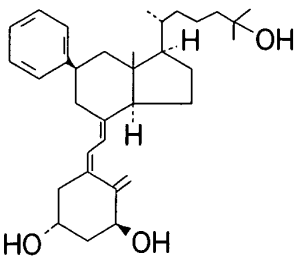
1α,25-(OH)<sub>2</sub>-  
24(R)-5,6-t-D<sub>2</sub>

**ZAE**



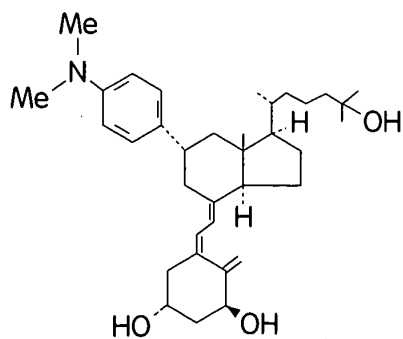
11α-phenyl-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAF**



11β-phenyl-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAG**



11α-dimethylaminophenyl-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAH**

**Fig. 1Cont.**

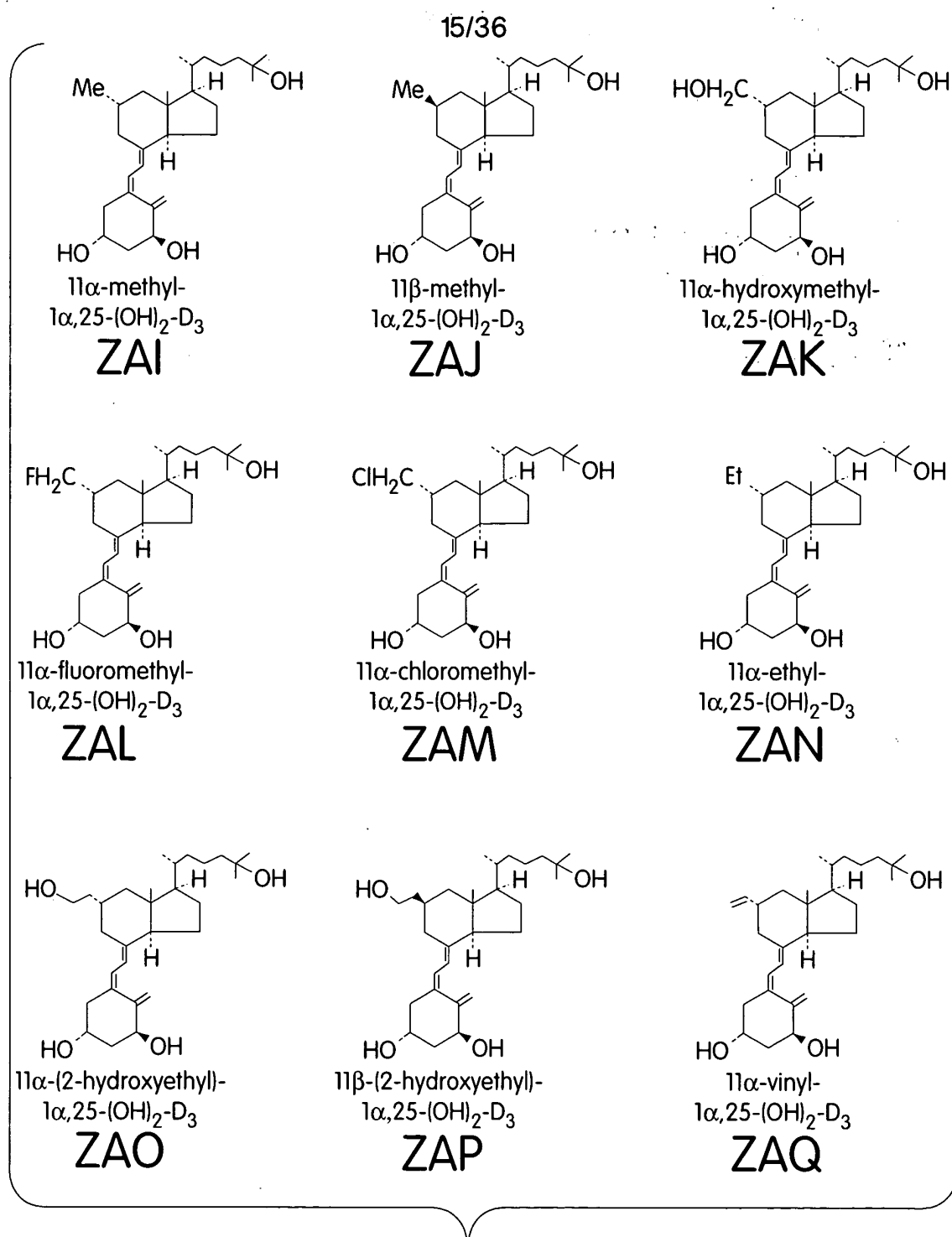
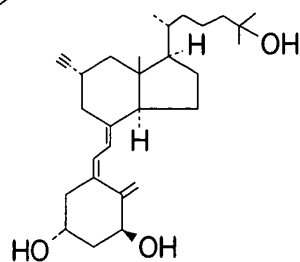
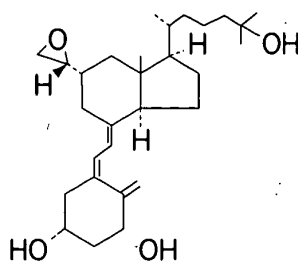


Fig. 1Cont.



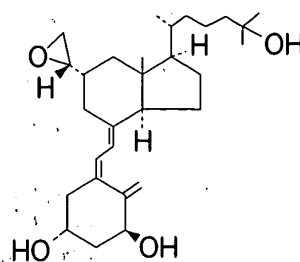
11α-ethynyl-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAR**



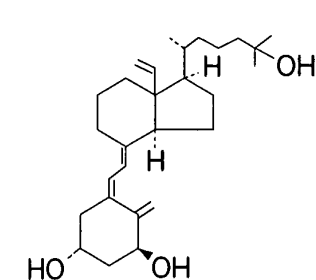
11α-[11'(R)-oxacyclopropyl]-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAS**



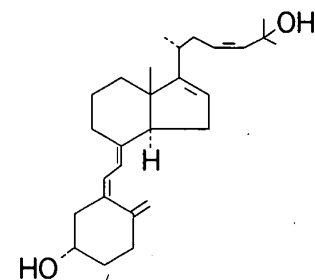
11α-[11'(S)-oxacyclopropyl]-  
1α,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZAT**



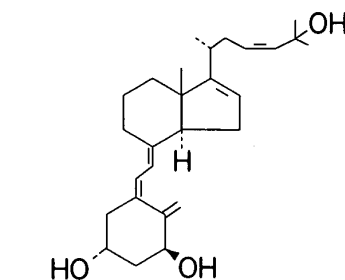
1α,25-(OH)<sub>2</sub>-  
13-vinyl-18-nor-D<sub>3</sub>

**ZAU**



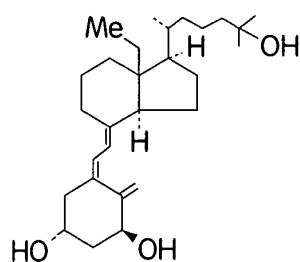
25-(OH)-16,23(Z)-  
diene-D<sub>3</sub>

**ZAW**



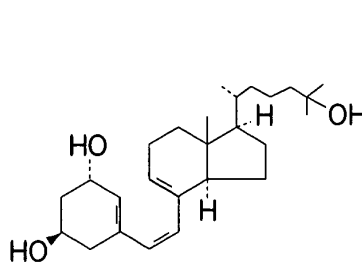
1α,25-(OH)<sub>2</sub>-16,23(Z)-  
diene-D<sub>3</sub>

**ZAX**



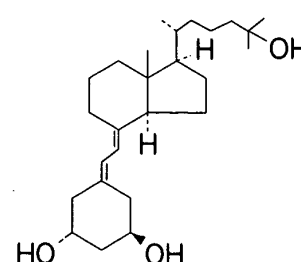
1α,25-(OH)<sub>2</sub>-  
18-methyl-D<sub>3</sub>

**ZAY**



1α,25-(OH)<sub>2</sub>-  
19-nor-pre-D<sub>3</sub>

**ZAZ**

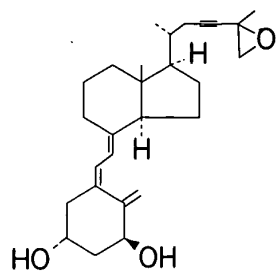


1α,25-(OH)<sub>2</sub>-  
19-nor-D<sub>3</sub>

**ZBA**

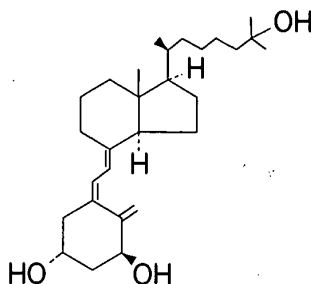
**Fig. 1Cont.**





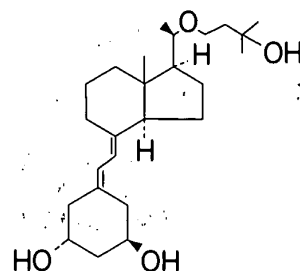
25,26-epoxy-23-yne-  
19-nor-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBB**



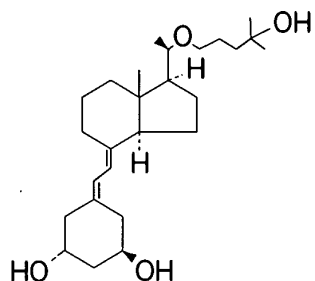
20-epi-24-homo-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBC**



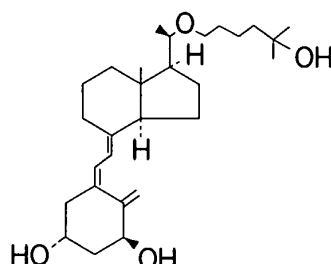
20-epi-22-oxa-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBD**



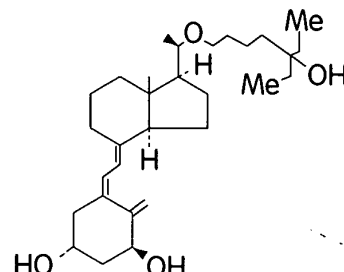
20-epi-22-oxa-  
24-homo-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBE**



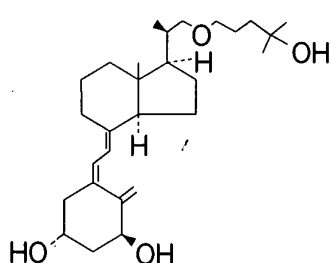
20-epi-22-oxa-  
24-dihomo-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBF**



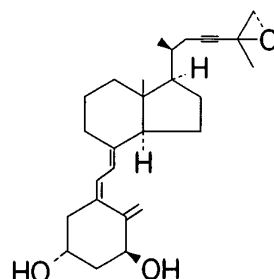
20-epi-22-oxa-24-dihomo-  
26,27-dihomo-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBG**



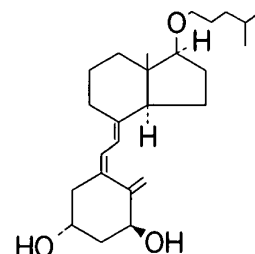
20-epi-23-oxa-24a,24b-  
dihomo-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBH**



25,26-epoxy-23-yne-  
20-epi-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBI**



1 $\alpha$ -(OH)-20-oxa-  
21-nor-D<sub>3</sub>

**ZBJ**

Fig. 1Cont.

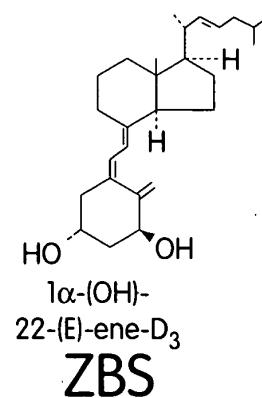
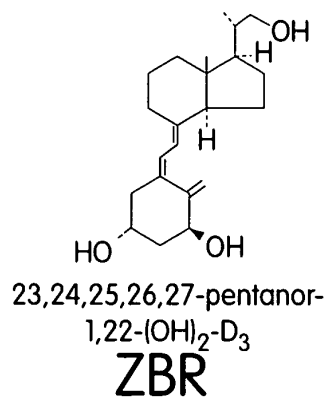
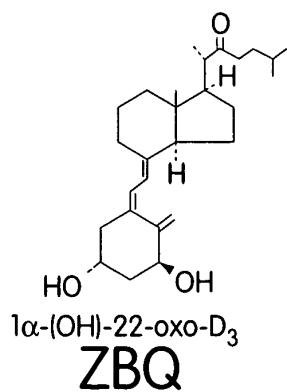
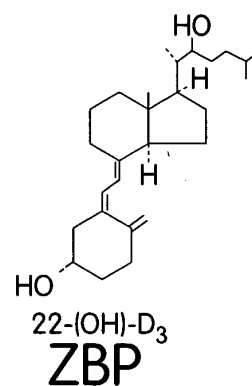
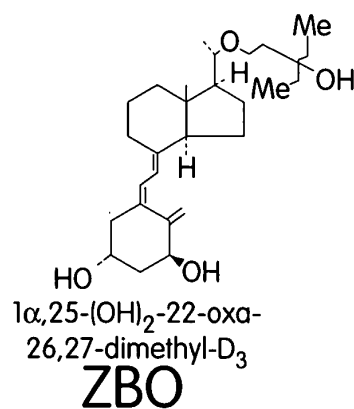
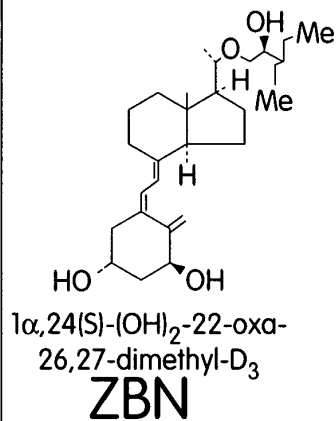
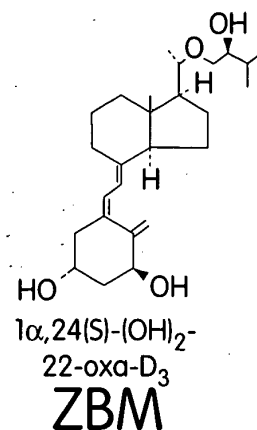
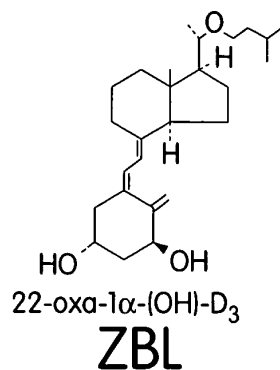
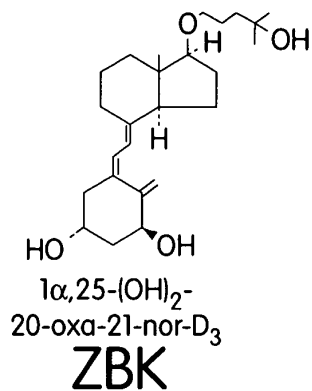
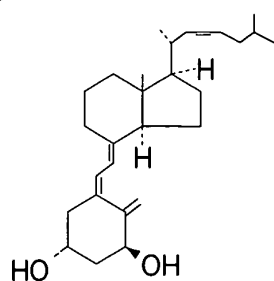
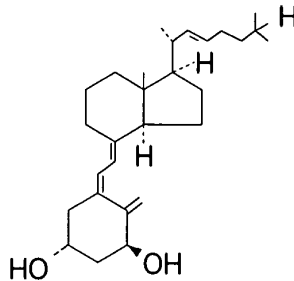


Fig. 1Cont.



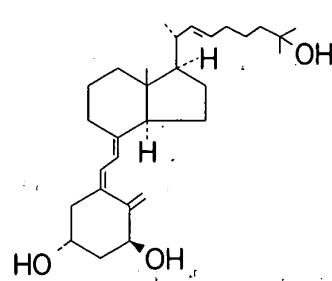
1 $\alpha$ -(OH)-  
22-(Z)-ene-D<sub>3</sub>

**ZBT**



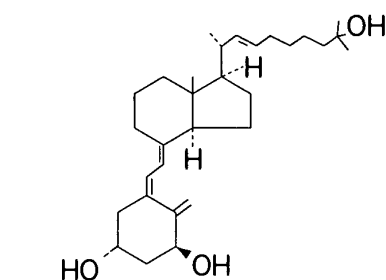
1 $\alpha$ ,25-(OH)<sub>2</sub>-  
22-ene-24-homo-D<sub>3</sub>

**ZBU**



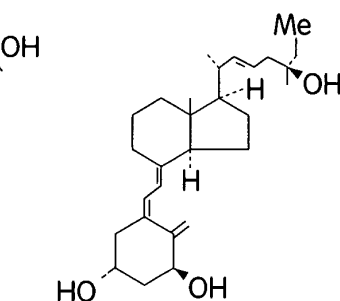
1 $\alpha$ ,25-(OH)<sub>2</sub>-22-ene-  
24,24-dihomo-D<sub>3</sub>

**ZBV**



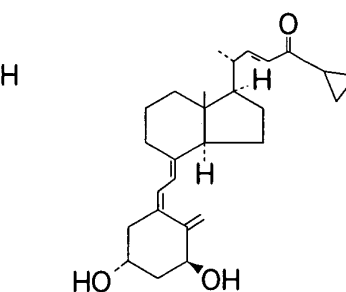
22-Dehydro-24,24,24-  
trihomo-1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBW**



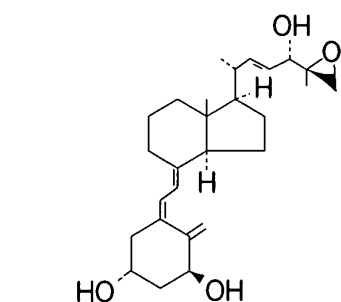
26-homo-22-dehydro  
1 $\alpha$ -25(R)-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBX**



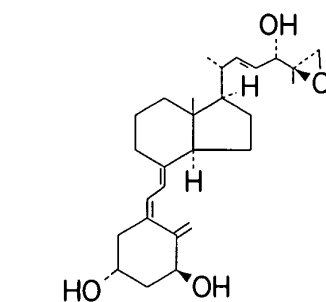
1 $\alpha$ -(OH)-22-ene-24-oxo-  
26,27-dehydro-D<sub>3</sub>

**ZBY**



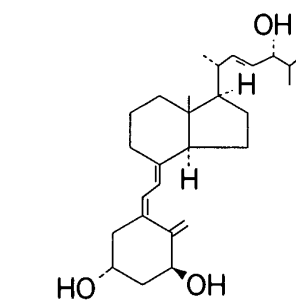
(24S,25S)-25,26-epoxy-  
22-ene-1 $\alpha$ ,24-(OH)<sub>2</sub>-D<sub>3</sub>

**ZBZ**



(24S,25R)-25,26-epoxy-  
22-ene-1 $\alpha$ ,24-(OH)<sub>2</sub>-D<sub>3</sub>

**ZCA**



(22E,24R)1 $\alpha$ ,24-(OH)<sub>2</sub>-  
22-dehydro-D<sub>3</sub>

**ZCB**

**Fig. 1Cont.**

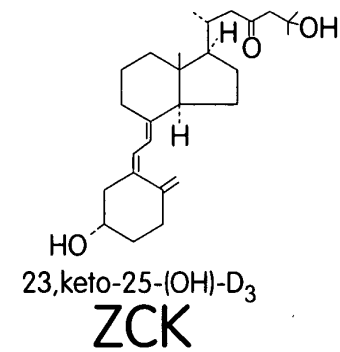
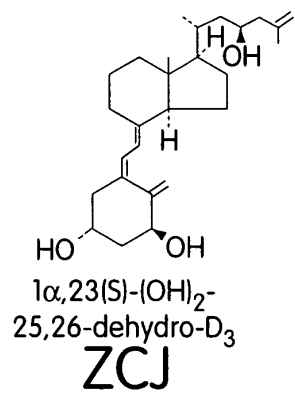
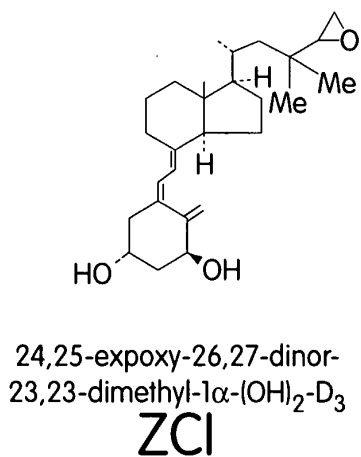
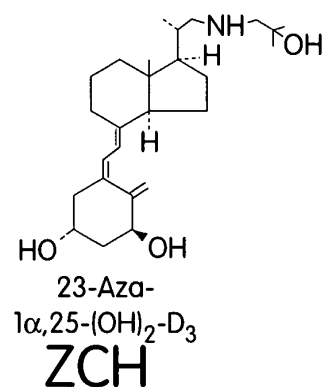
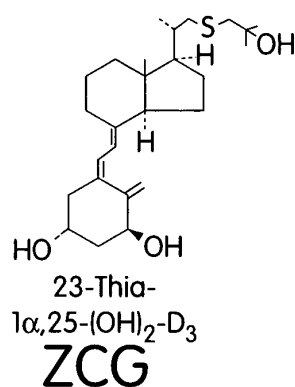
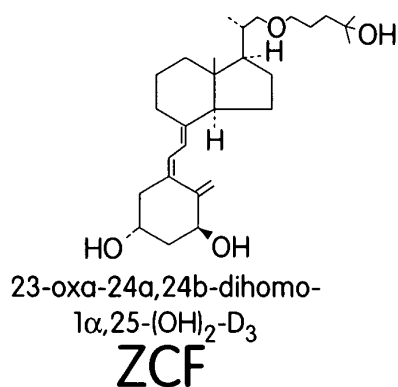
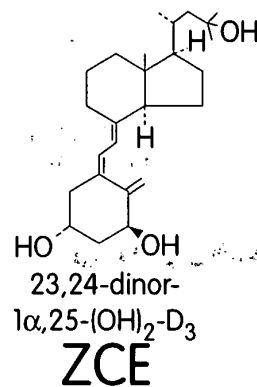
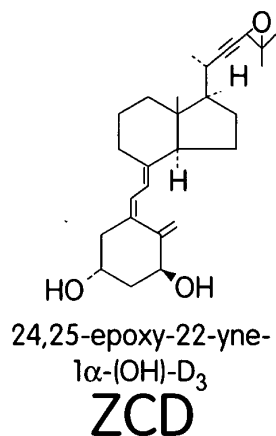
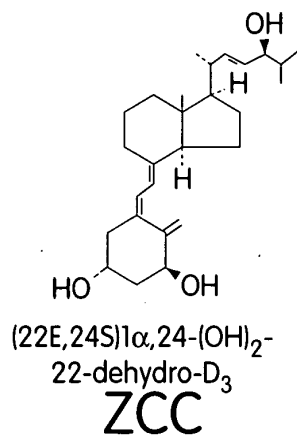


Fig. 1Cont.

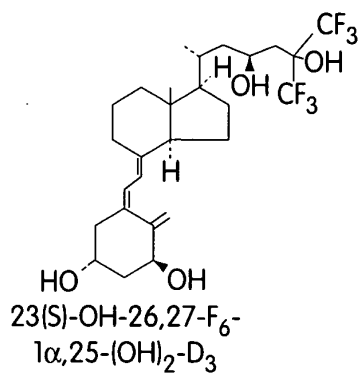
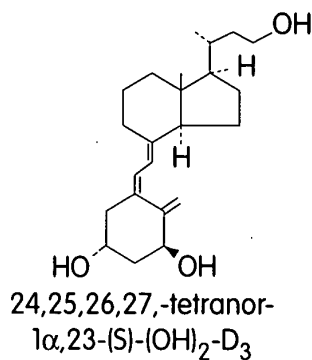
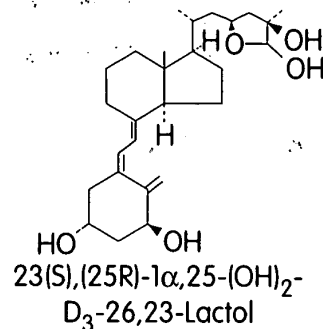
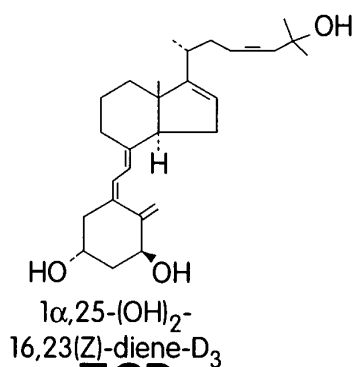
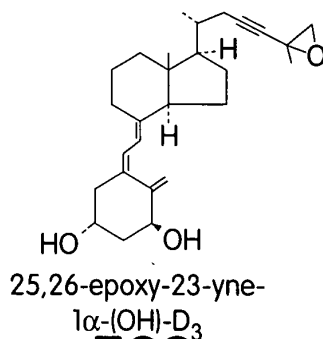
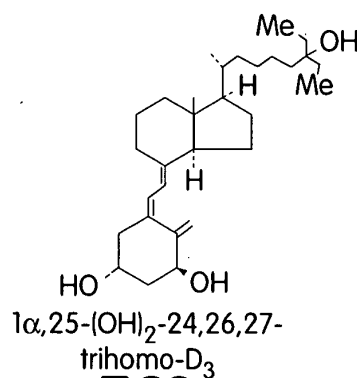
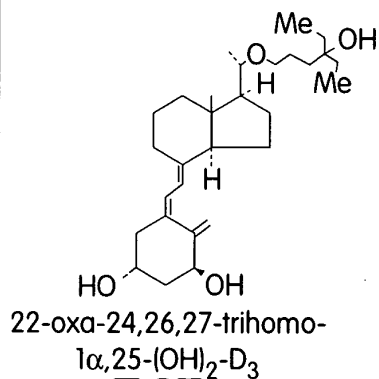
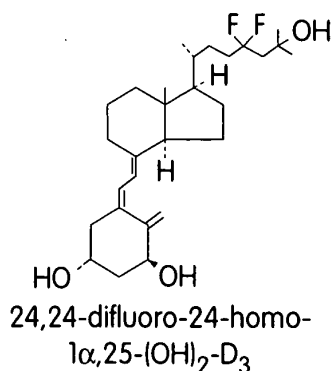
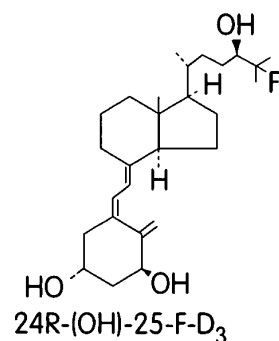
**ZCL****ZCM****ZCN****ZCP****ZCQ****ZCS****ZCT****ZCU****ZCV**

Fig. 1Cont.

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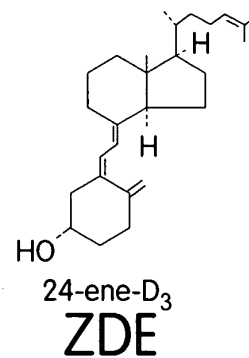
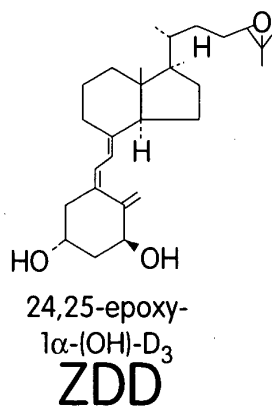
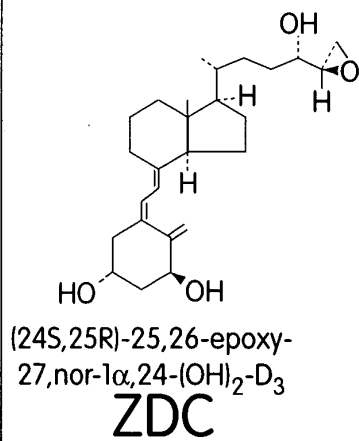
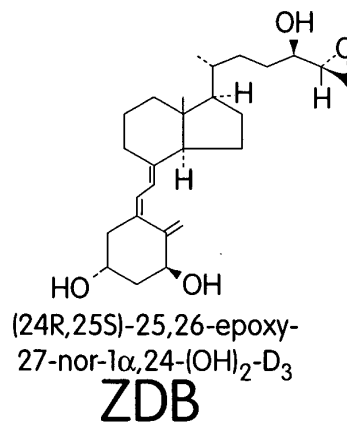
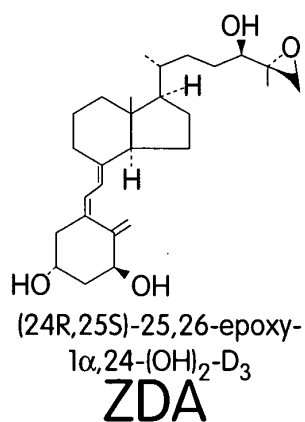
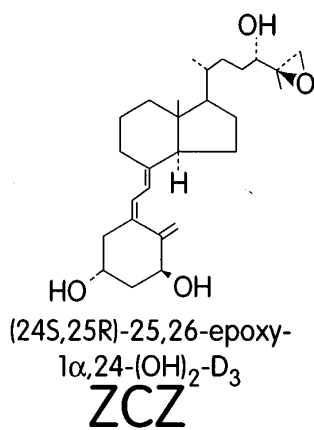
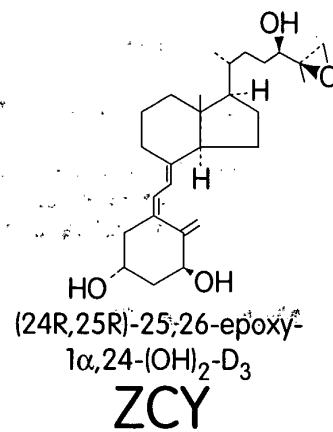
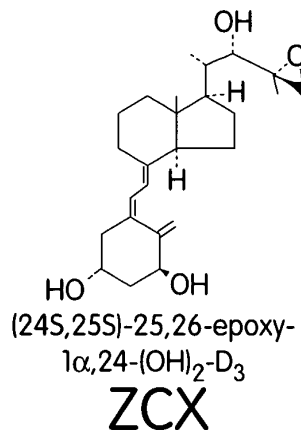
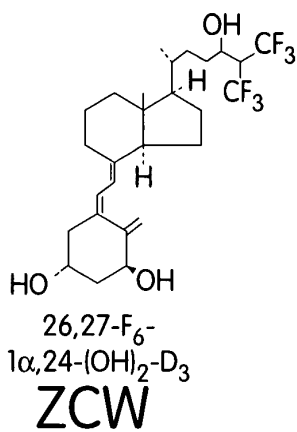


Fig. 1Cont.

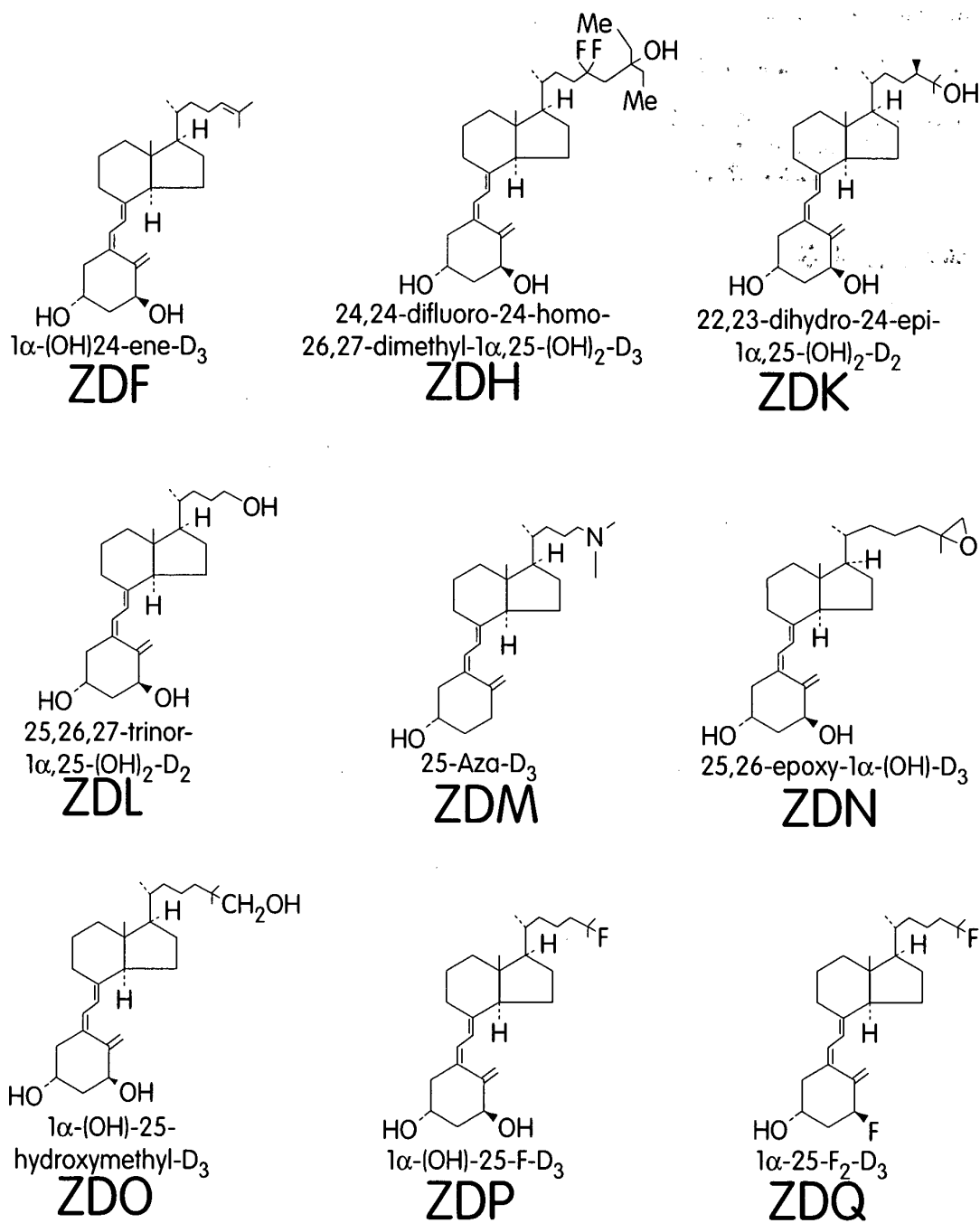


Fig. 1Cont.

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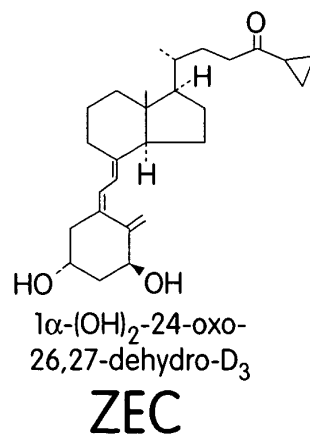
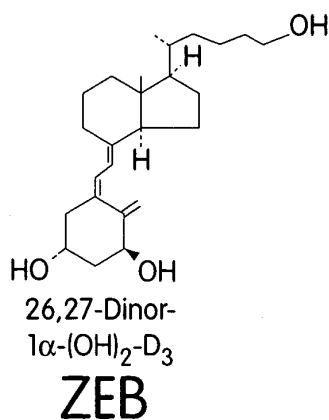
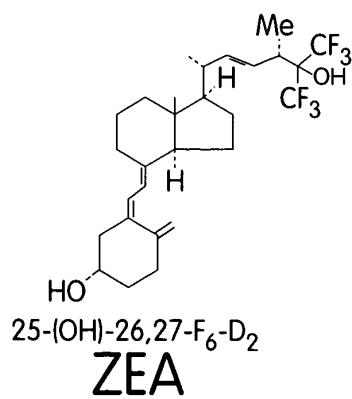
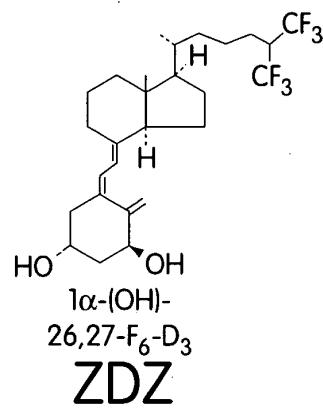
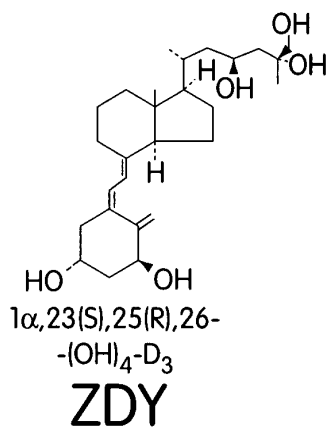
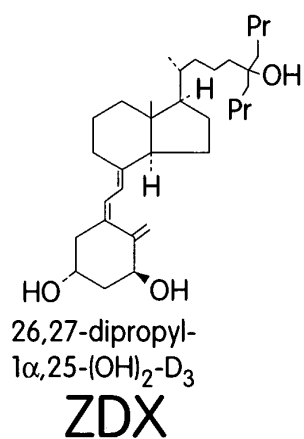
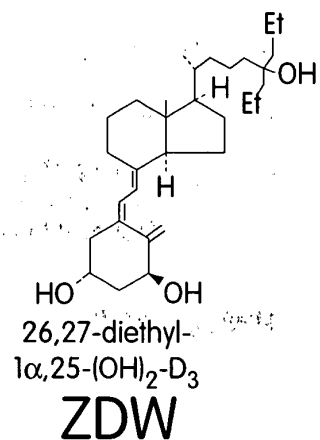
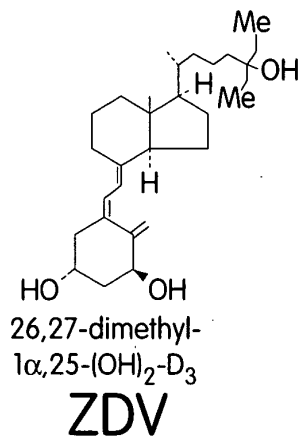
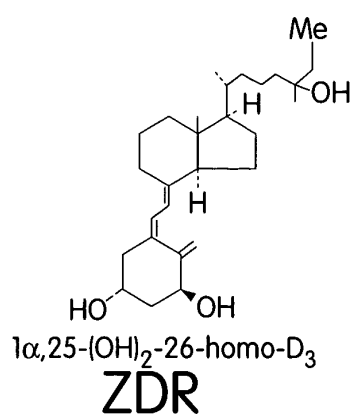


Fig. 1Cont.



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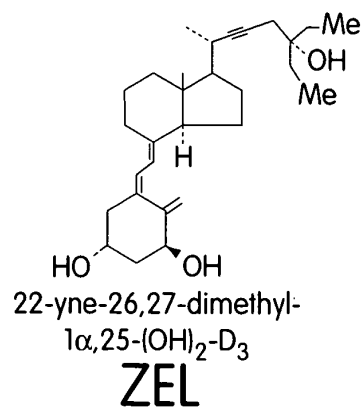
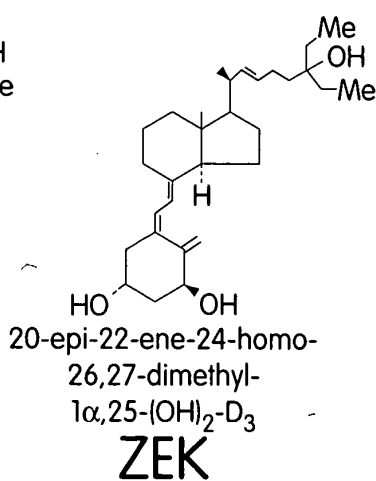
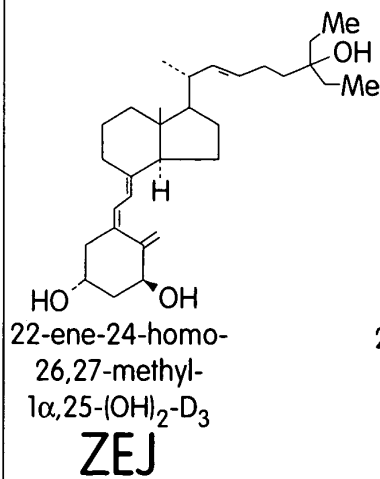
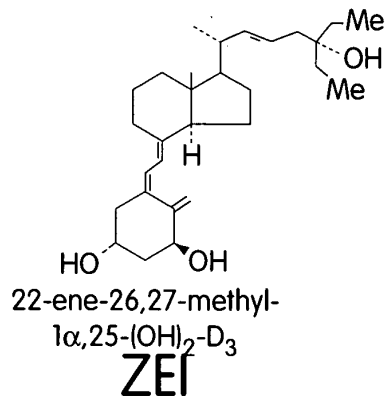
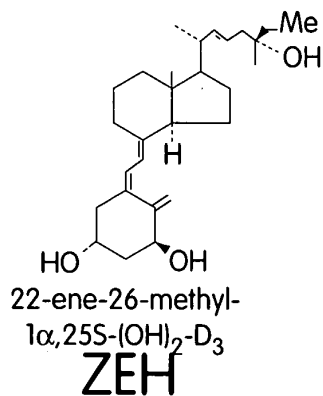
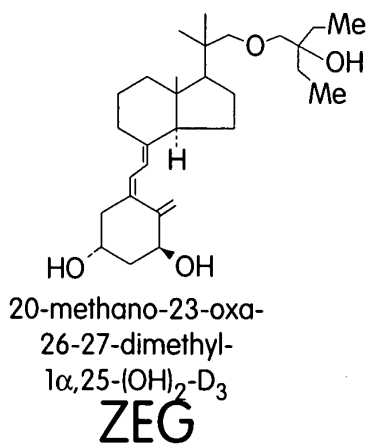
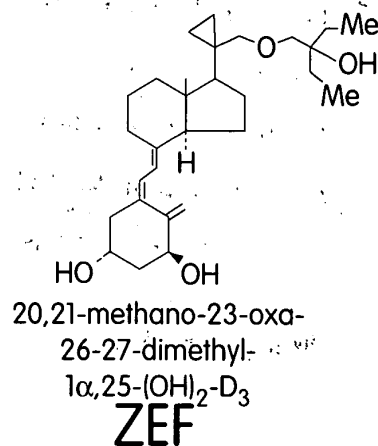
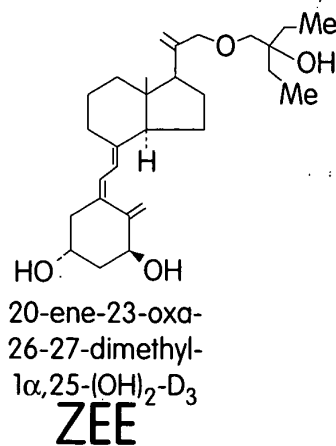
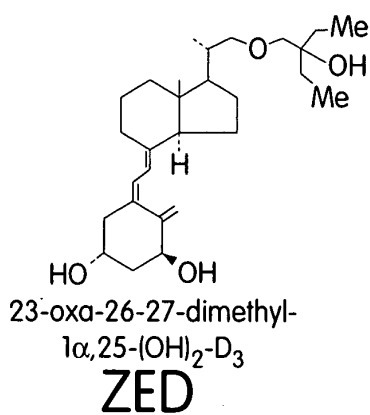
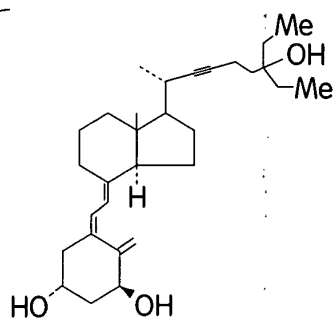


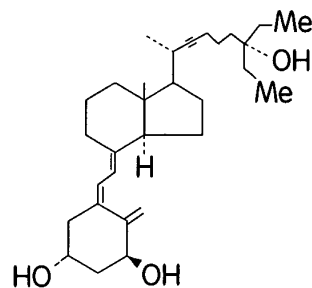
Fig. 1Cont.

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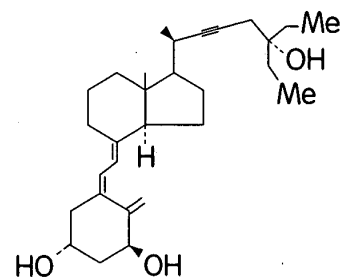
22-yne-24-homo-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZEM**



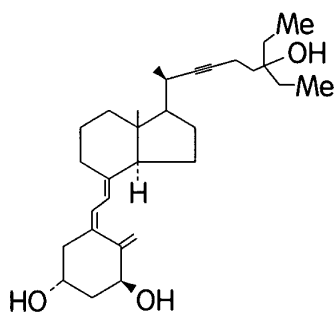
22-yne-24-dihomo-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZEN**



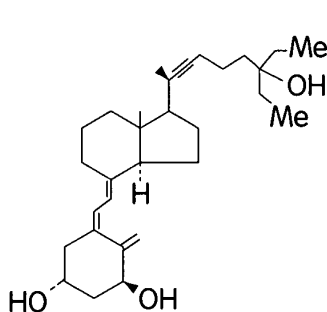
20-epi-22-yne-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZEO**



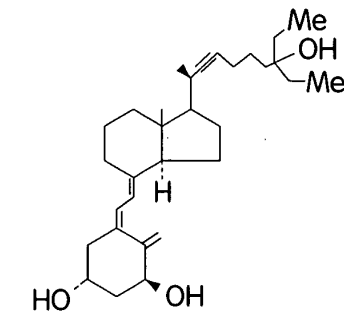
20-epi-22-yne-24-homo-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZEP**



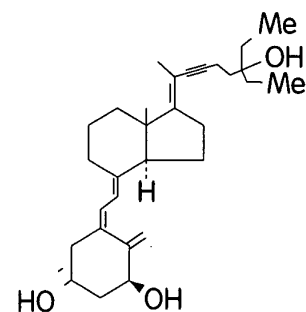
20-epi-22-yne-24-dihomo-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZEQ**



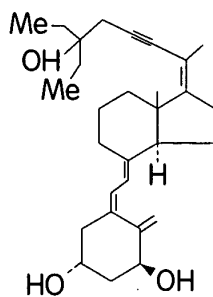
20-epi-22-yne-24-trihomo-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZER**



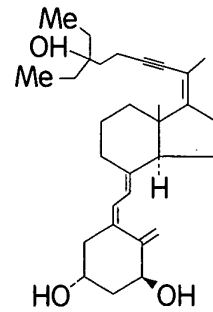
17(20)E-ene-22-yne-  
24-homo-26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZES**



17(20)Z-ene-22-yne-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZET**



17(20)Z-ene-22-yne-  
24-homo-26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZEU**

Fig. 1Cont.

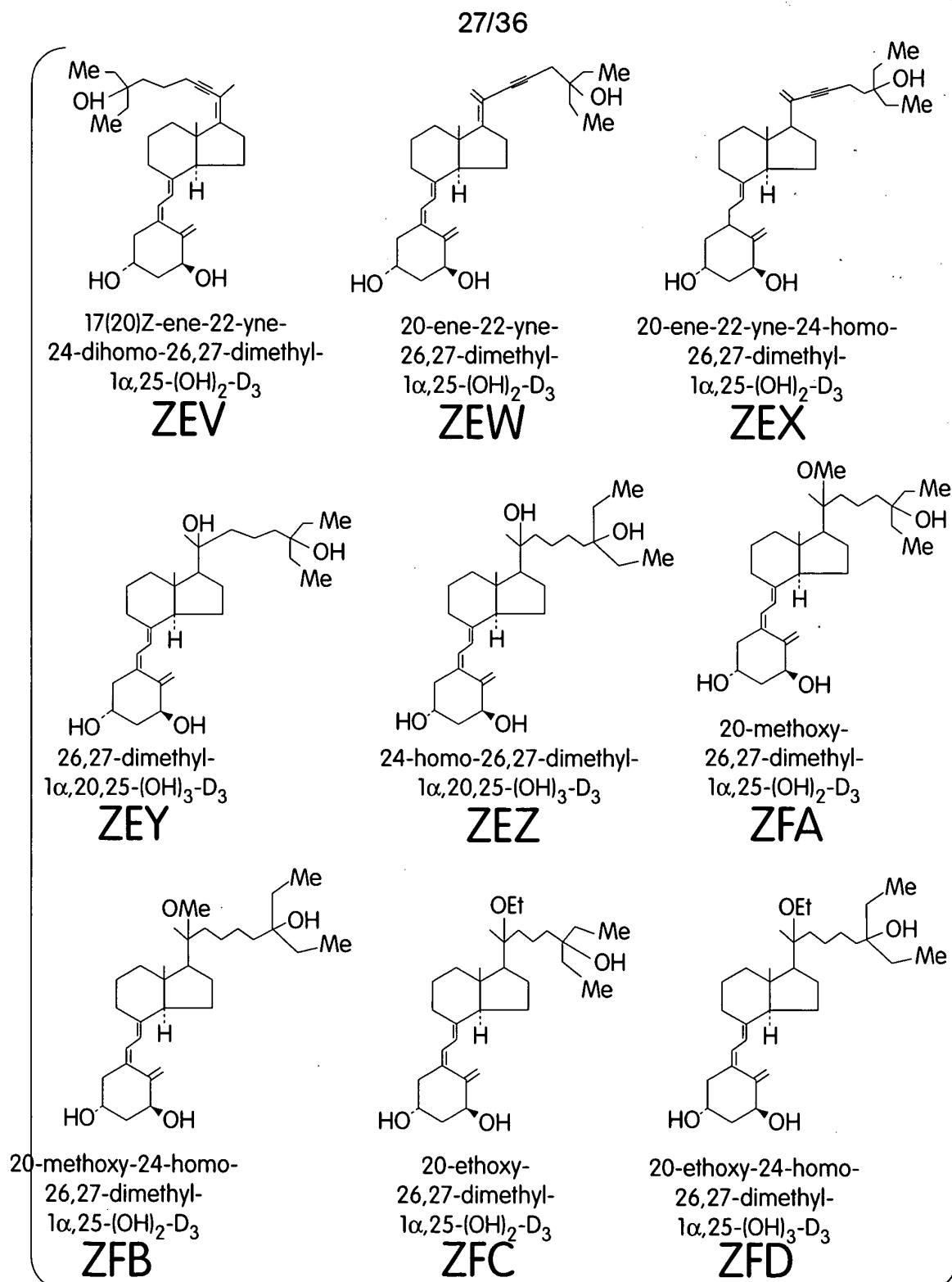


Fig. 1Cont.

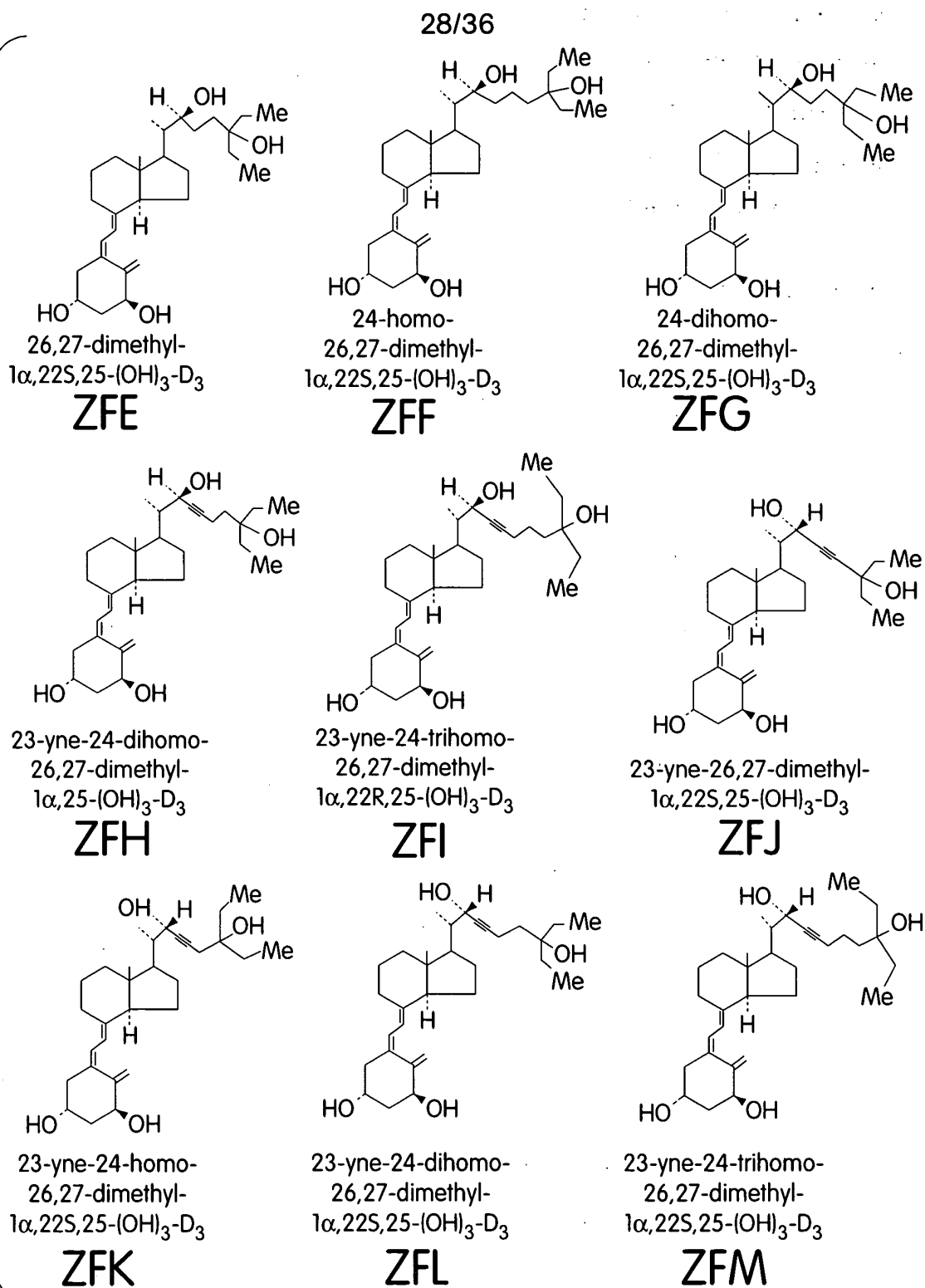
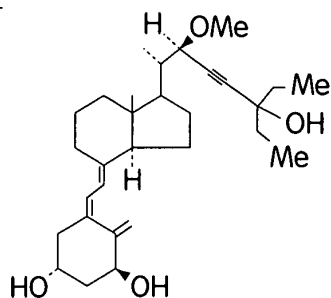


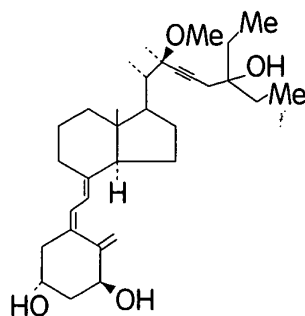
Fig. 1Cont.

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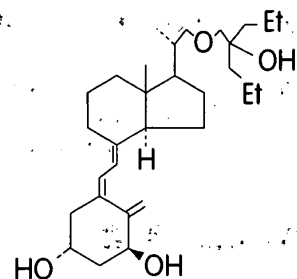
22R-methoxy-23-yne-  
26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFN**



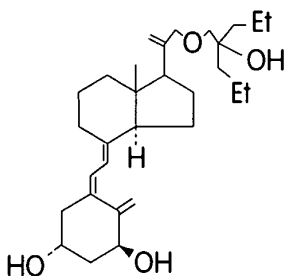
22R-methoxy-23-yne-  
24-homo-26,27-dimethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFO**



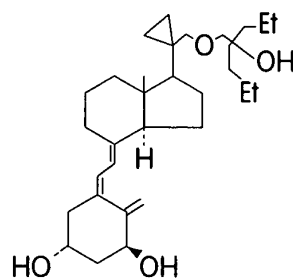
23-oxa-  
26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFP**



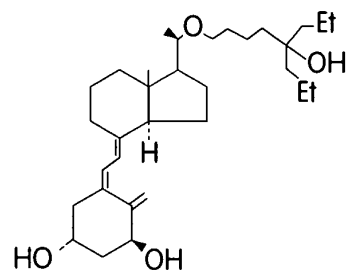
20-ene-23-oxa-  
26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFQ**



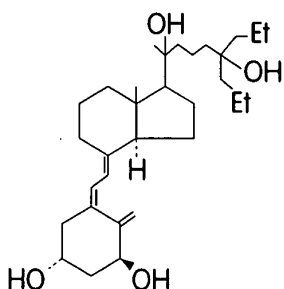
20,21-methano-23-oxa-  
26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFR**



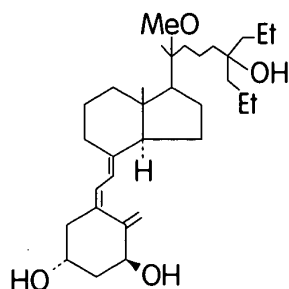
20-epi-22-oxa-24-dihomo-  
26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFS**



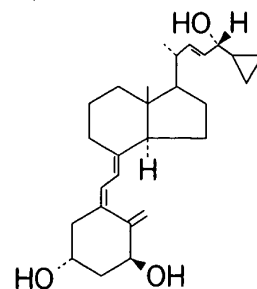
26,27-diethyl-  
1 $\alpha$ ,20,25-(OH)<sub>3</sub>-D<sub>3</sub>

**ZFT**



20-methoxy-26-27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFU**

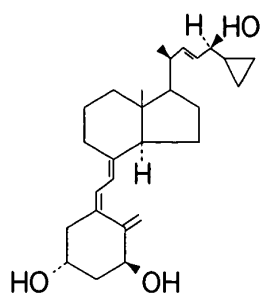


22-ene-26-27-dehydro-  
1 $\alpha$ ,24R-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFV**

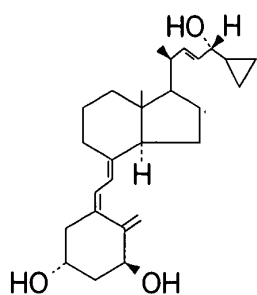
Fig. 1Cont.

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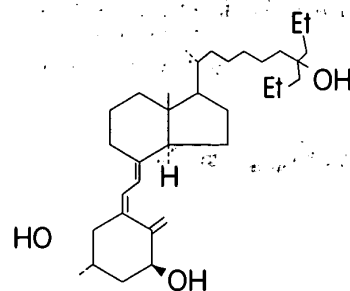
20-epi-22-ene-  
26,27-dehydro-  
1 $\alpha$ ,24S-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFW**



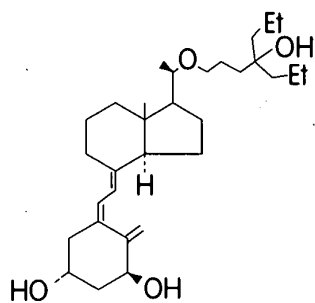
20-epi-22-ene-  
26,27-dehydro-  
1 $\alpha$ ,24S-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFX**



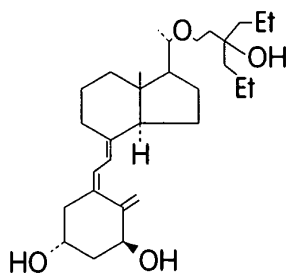
24-dihomo-26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFY**



20-epi-22-oxa-24-dihomo-  
26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZFZ**



22-oxa-26,27-diethyl-  
1 $\alpha$ ,25-(OH)<sub>2</sub>-D<sub>3</sub>

**ZGA**

**Fig. 1 Cont.**

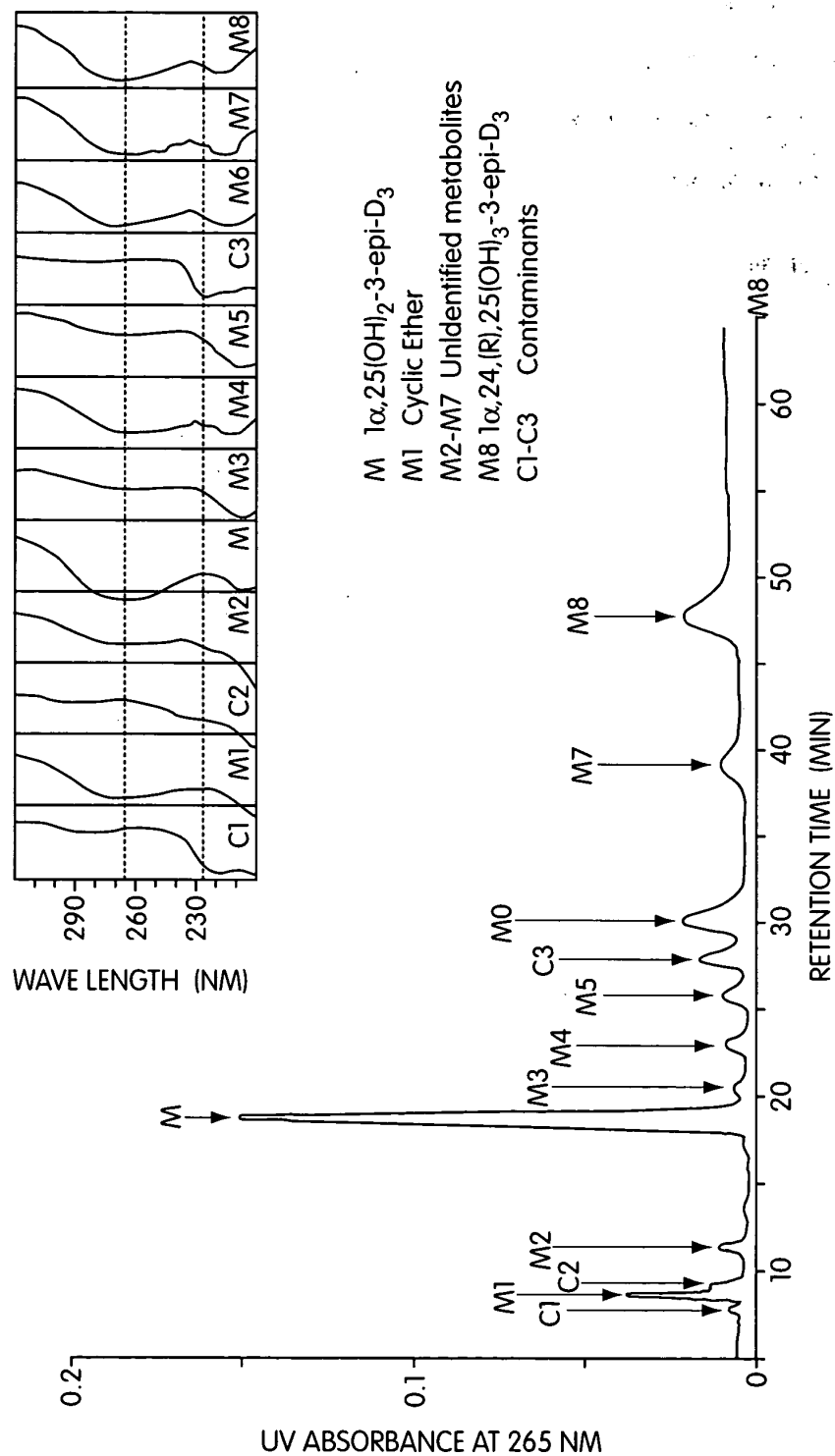


Fig.2

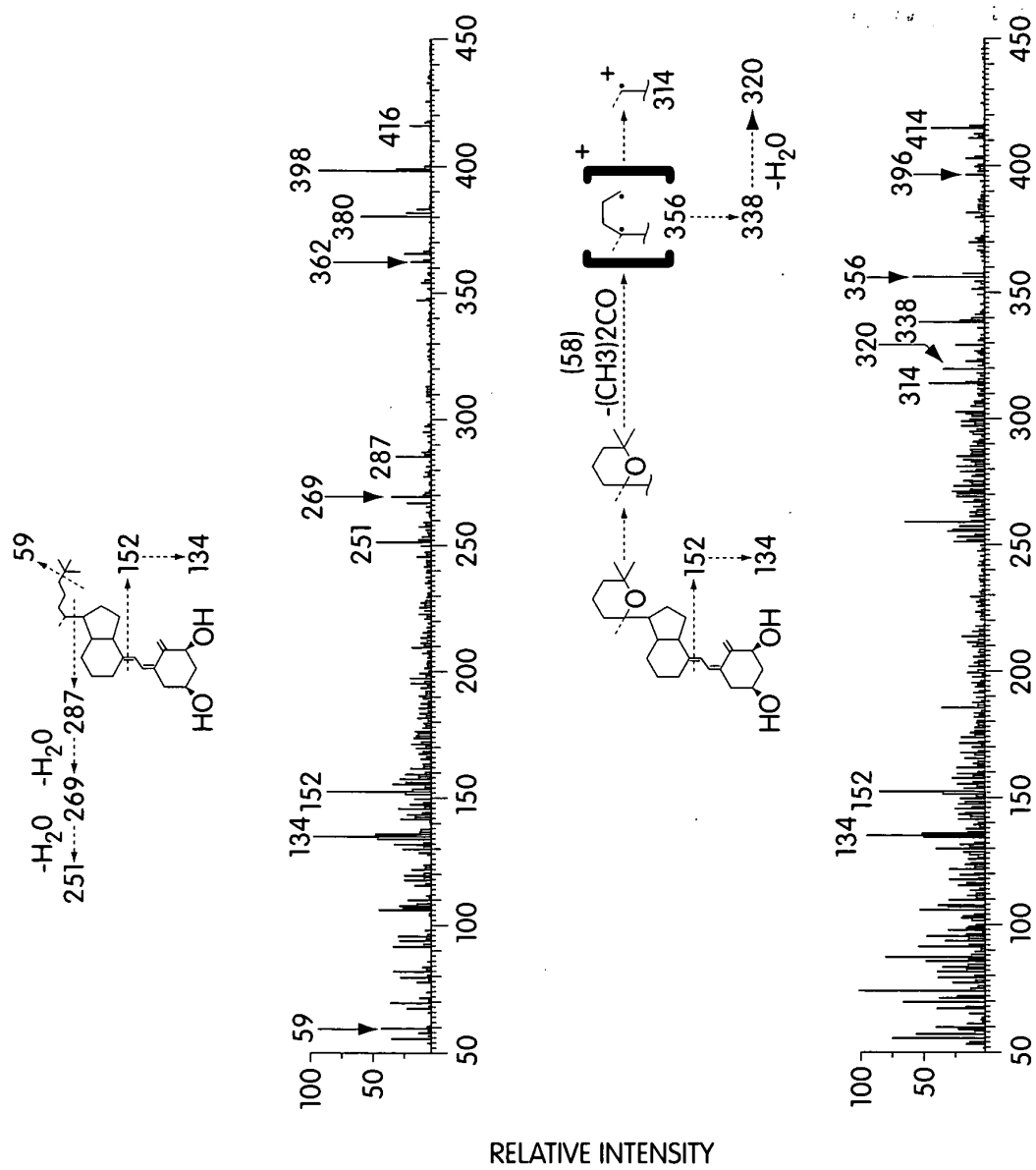


Fig. 3



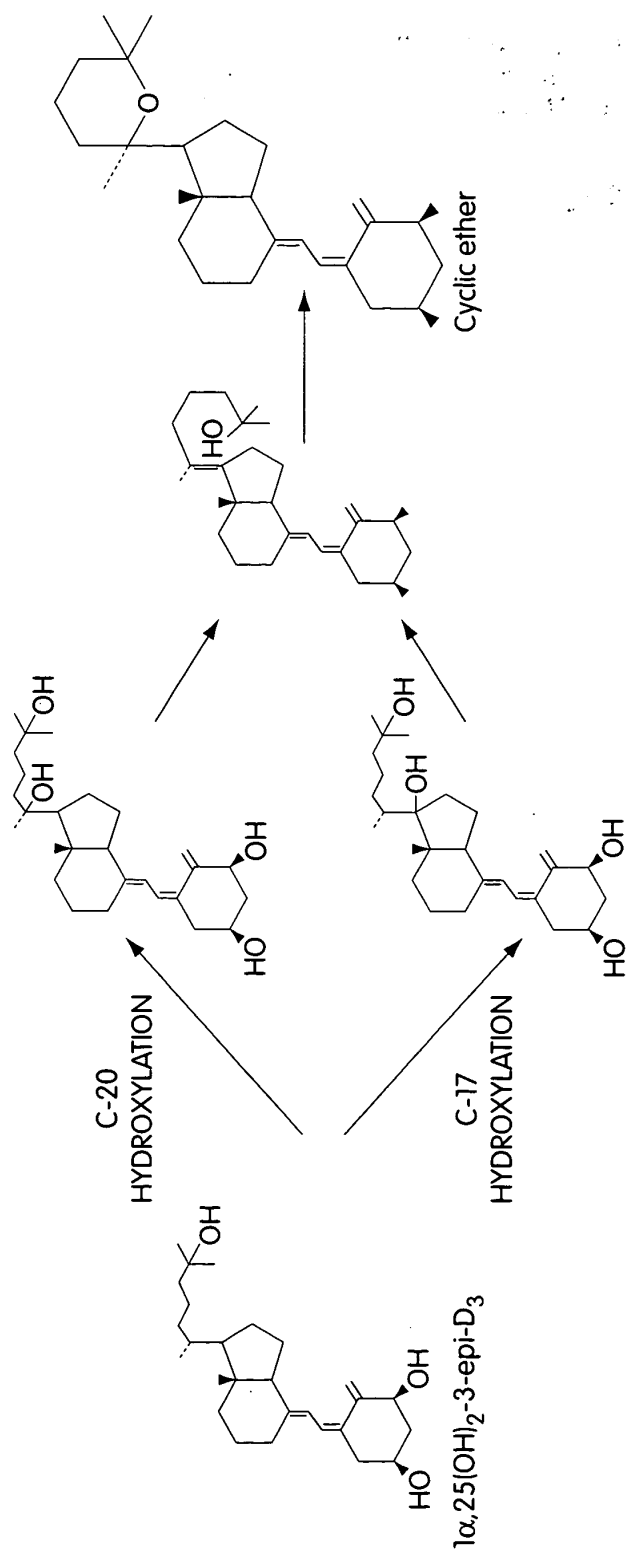


Fig. 4

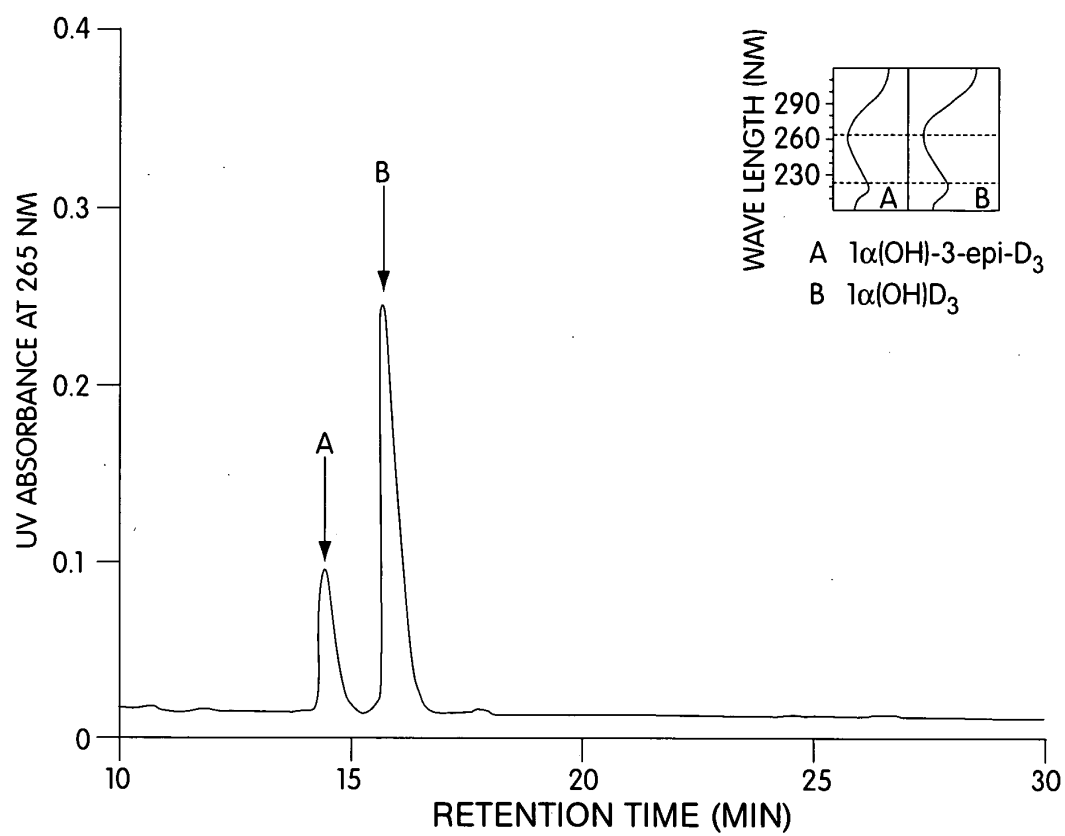


Fig. 5A

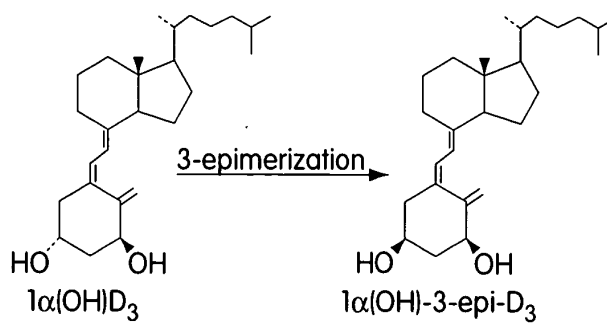


Fig. 5B

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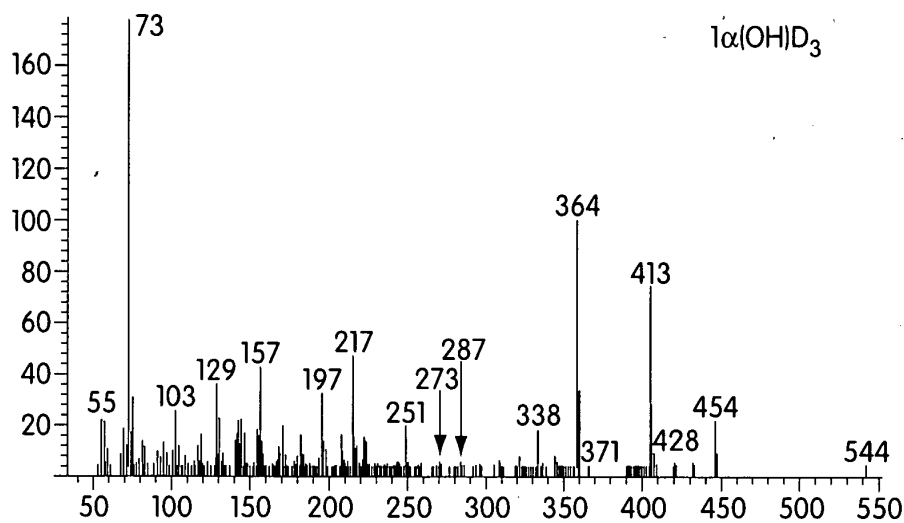


Fig. 6A

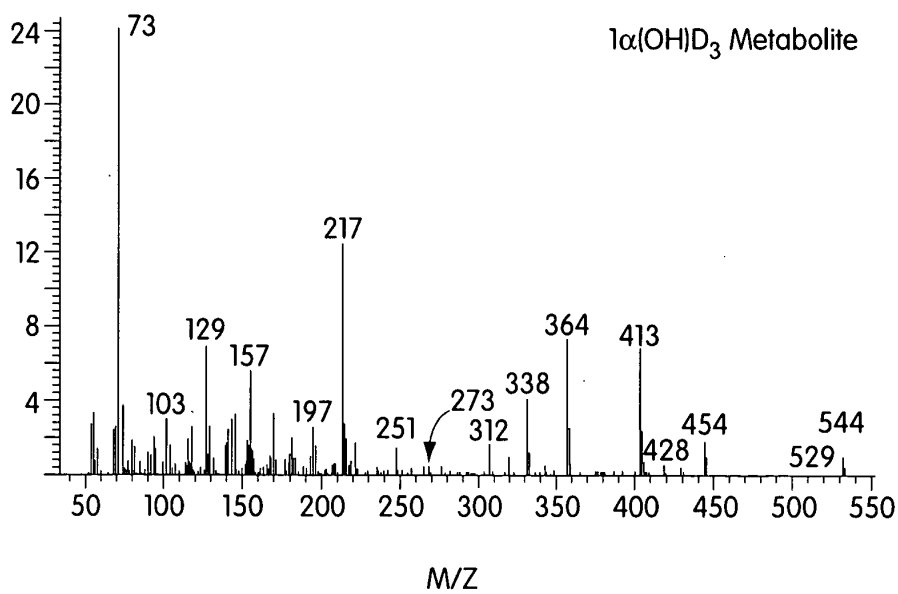


Fig. 6B

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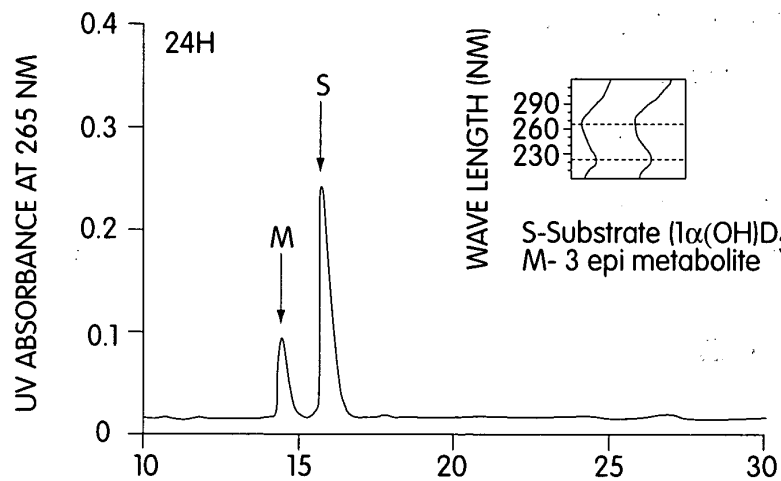


Fig. 7A

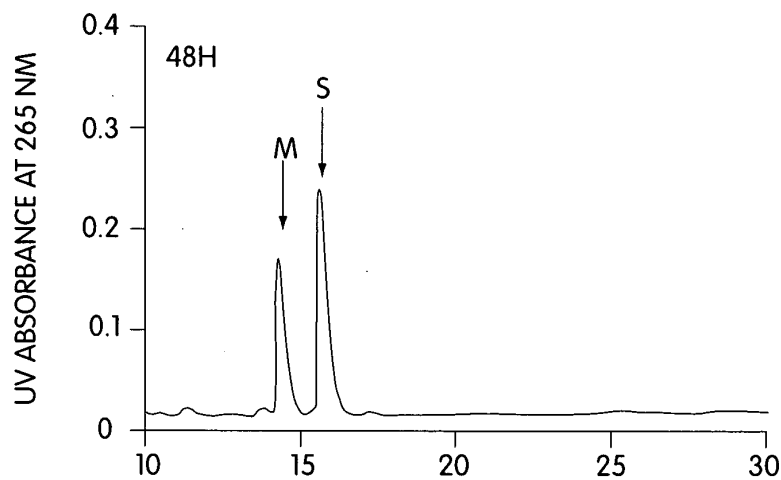


Fig. 7B

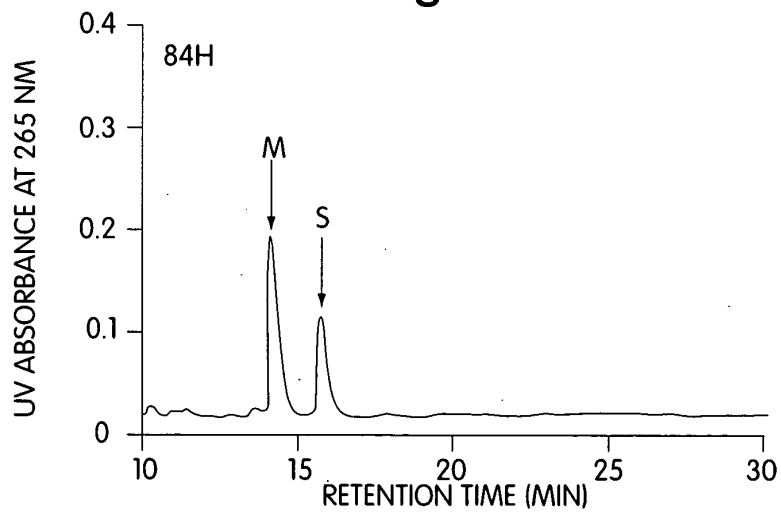


Fig. 7C